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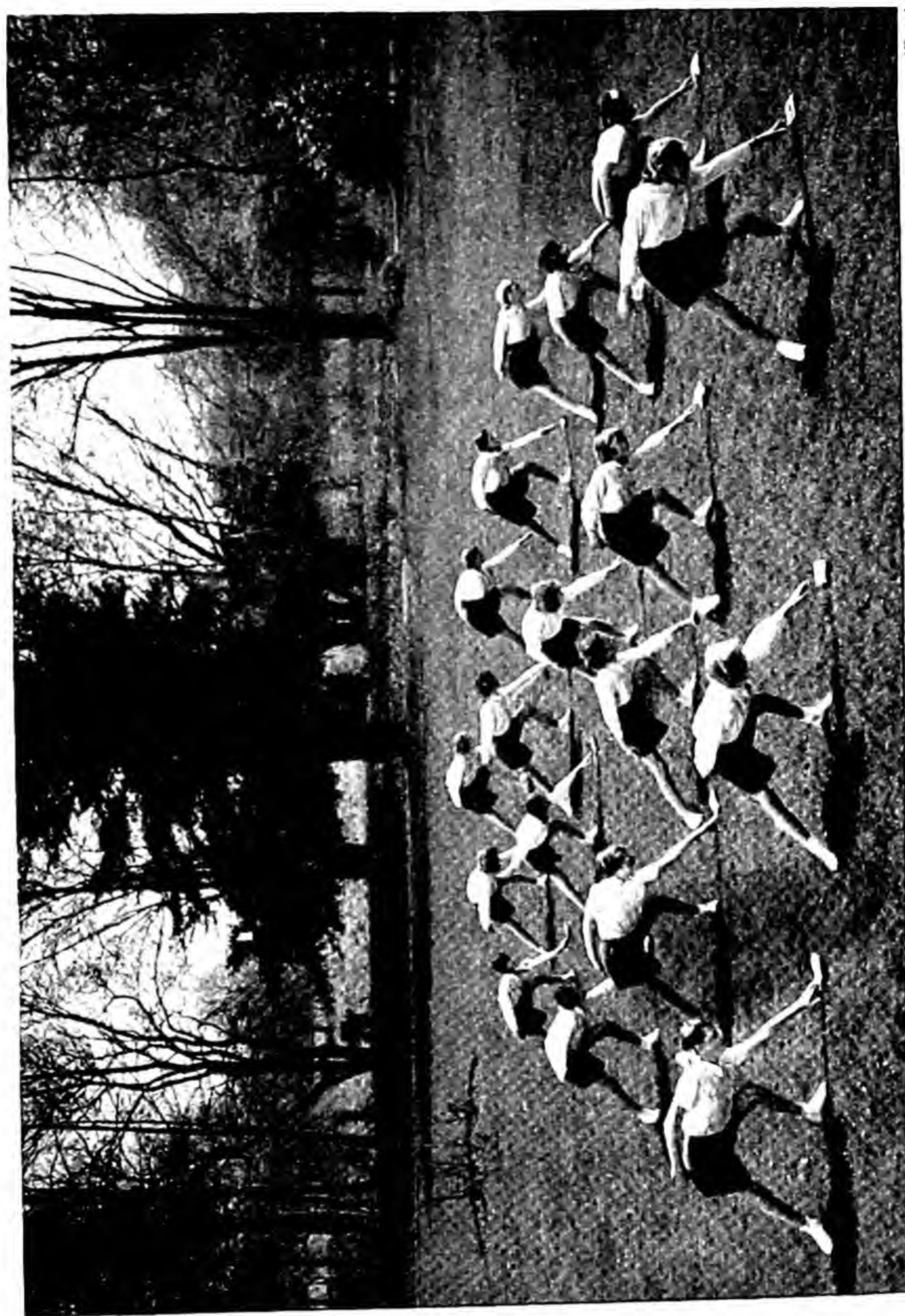
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PHYSICAL TRAINING
FOR GIRLS



Frontispiece

PHYSICAL TRAINING FOR GIRLS

BY
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SECOND EDITION



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PREFACE

TEACHING methods have changed so much since this book was first published that a revised edition is necessary.

There is at present a great demand for teachers of Physical Education in all its branches both in the schools and in the many organizations which cater for young people.

The supply of trained gymnastic teachers is barely sufficient to staff the Grammar Schools and those Secondary Modern Schools which are fortunate enough to have fully equipped gymnasiums. Therefore the Physical Education of the majority of the school children in this country is taught by semi-specialist teachers in Primary, Secondary Modern, and some of the Private Schools. I hope that this book will be helpful to these teachers and to others whose hard work and enthusiasm is doing so much for Physical Education.

I am indebted to Miss E. M. Edwards who provided the line drawings for the first edition, and allowed her pupils to pose for the photographs, many of which I have retained for this edition.

I have to thank the Headmistress of St. Teresa's Convent School, Sunbury-on-Thames, for allowing me to publish the photographs of my pupils at work (frontispiece and pages 20, 25 and 37), which were taken specially for this new edition.

D. M. C.

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SECTION I

GENERAL PRINCIPLES

THIS book is not written for the specialist who has had a three years' course, but to meet the needs of those who have not had such a training. As its chief object is to be of use to the school teacher, it deals particularly with work suitable for girls of from 8 to 16 years of age. It is hoped that it may also be of assistance to those who are engaged in directing physical recreational activities in junior classes in connection with Girls' Clubs and Evening Institutes and social organizations of various kinds.

There are a large number of schools of various types in which the physical training is conducted by teachers who have been able to devote only a comparatively short period of time to specialized training. Many of these teachers may welcome a handy reference book providing a stock of material to draw upon when compiling lessons, and giving some practical hints upon their planning and teaching.

The book is intended for the use of teachers who have already had some training in the work. No amount of theoretical knowledge can take the place of practical instruction in such an essentially practical subject.

The Summer Schools provide additional sources of training and large numbers of teachers avail themselves of the opportunities which these offer for keeping up to date with modern developments and making themselves more efficient in the work.

Some work with gymnastic forms has been included in the book. It must be clearly understood that this should be attempted only by teachers who have attended special courses of instruction in the use of such apparatus. Apparatus is now used in the Infant and Junior departments of Primary Schools. Some Secondary and Private Schools without fully-equipped gymnasiums find it possible to provide portable apparatus which can be used in a school hall, or in suitable conditions in the playground.

THE OBJECT OF PHYSICAL EDUCATION

There is a good deal of misconception about the purposes of and needs for Physical Education. In some schools it is still regarded as an entirely recreational subject, and pupils who are backward or are working for scholarships are withdrawn from the gymnastic classes to do extra study. Because the work is generally enjoyed pupils who have broken school rules are even, on occasion, deprived of exercise as a punishment. All this arises from a failure to understand that Physical Education is a part of general education, and

is not concerned with the training of the body only, but takes an important share in mental development also. The body is the machine through which the mind works, and the means by which it receives all its impressions. The two are interrelated and must be educated in unity.

Frequently, children who are unfit physically are found to be handicapped mentally. It is known that the motor activities have an important influence upon the development of the brain.

No animal will develop normally and remain healthy without exercise, and the human animal is no exception.

Small children should not be made to sit for long periods without exercise. The following recommendations are taken from a pamphlet published in 1945 by the National Association of Organizers of Physical Education.

Infant Classes. There should be two daily periods of Physical Education.

Junior Classes. A daily period of Physical Education should be arranged.

Secondary Classes. There should be a daily period of some form of Physical Education.

This is an ideal we should strive towards but which very few schools at present are either able or willing to realize. The shortage of staff qualified to give instruction in Physical Education is but one of the many difficulties.

Five lessons a week should be the aim. Three lessons a week should be the minimum. In hot weather it may be advisable, if there are facilities, to substitute swimming for some of the gymnastic training.

MODERN PHYSICAL EDUCATION

Physical Education in schools includes gymnastics, dancing, swimming, athletics, and games. Each group has its own particular value and all are necessary.

The aims of gymnastics are to exercise and develop the whole body equally, to prevent and correct faulty posture, and to train in agility, lightness, and control.

The lessons in this book are arranged in accordance with the principles of Swedish Educational Gymnastics. This is the system upon which the gymnastics taught in the schools of this country are based, and it has stood the tests of time and experience.

That the lessons were dull was a legitimate criticism of the older type of Swedish work, but nobody can truthfully call the modern lesson dull. The tables of exercises are arranged upon the same principles, but a complete transformation has taken place both in

the teaching methods and in the increased interest and variety of the activities taught.

THE TEAM SYSTEM

The division of the class into teams or groups for jumping, vaulting and agility work was one of the first innovations, and this method of arranging the class for what is termed the "general activity" portion of the lesson has been used now for a good many years. By this method the children instead of having to wait in one long line for a turn at the apparatus are divided into teams, each working under a leader. They thus get more turns, and are employed and interested all the time; they also receive training in leadership and responsibility. This method of class organization is essential for modern work and is fully explained on page 14.

The older type of formal "drill" under which the children spent most of the lesson on one spot in files, being "put through" various disconnected and isolated movements, has been replaced by more natural activity. The children's desire for movement is not balked by their being constantly pulled up to "attention" between exercises, and having every movement controlled by words of command or numbers. This does not mean that no commands are given: there must be some commands, and learning to respond to these gives valuable training in alertness and control.

Continuity is an important feature of the work; the finishing position of one exercise can often be used for the starting position of the next, and certain types of movements can be done rhythmically, making it possible to repeat them several times continuously.

SUITABLE CLOTHING

In most schools the girls work in blouses and dark knickers. This is inexpensive, neat, and allows free movement. Some schools prefer the girls to wear shorts of the type shown in the photographs which illustrate this book. These look smart and are more becoming than knickers, especially for senior girls. Expense is a disadvantage as they must be well cut and well made.

The blouse or shirt should have an open neck and short sleeves. It should be made so that without being bulky there is enough material to pull down and prevent an unsightly gap showing between it and the knickers or shorts.

Underclothing should be loose and light. A vest and thin knicker linings, and a brassière for the older girls is sufficient.

Too much clothing during exercise overheats the body, causes fatigue and predisposes to "catching cold." To avoid chills, extra clothing should be put on *immediately after exercise* to prevent the too rapid loss of heat.

Light-soled gymnastic shoes without heels should be worn.

Canvas tops are better than leather because they are cooler and allow of better ventilation. These shoes should only be worn for the lessons. The wearing of this type of shoe throughout the day is a common cause of flat foot amongst school children.

HYGIENE

The Early Victorian girl was told "horses sweat, men perspire, ladies glow." However this may be, it is a fact that bodily heat produced by exercise causes perspiration. Perspiration is one of the chief means of removing waste products. Therefore the body should be washed and the undergarments changed after exercise. This is unfortunately not a common practice in girls' schools. In day schools it may be difficult to arrange for a wash and change, but in boarding schools there can be no excuse for not making adequate arrangements.

Shower baths and canvas dressing boxes are easily fitted up. In schools where the children go straight from the gymnasium to the showers it is found that a class of thirty children can pass through the showers, have a rub down and put on their clothes in the five minutes allowed for this at the end of the lesson.

In schools where it may not be possible to provide such facilities the children should be impressed with the importance of washing and changing directly they get home.

GENERAL PLAN OF A GYMNASTIC LESSON

A Gymnastic Table consists of a series of movements arranged in a progressive order which will ensure exercise of every part of the body. The following shows a general plan of a modern table.

A. Introduction

General activity. Free and informal.

Time 5 to 10 minutes.

B. Principal Exercises

Trunk exercises.

Leg exercises.

(a) Extension exercise for posture.

(b) Supplementary exercise.

Balance exercises.

Arm exercises.

Abdominal exercise.

Time 10 to 15 minutes.

C. General Class Activity

Team or group work: jumping, vaulting, agility.

Final exercise: simple exercise or "Stand tall" to emphasize good posture.

Time 20 to 25 minutes.

The arrangement may be modified but the main features should be followed. The tables given in this book show how modifications should be made.

THE TABLE EXPLAINED

A. Introduction

The Introductory Activities form a transition between the bodily inaction of the classroom and the stronger physical activity of the main part of the lesson. Their aim is to set the circulation moving actively, secure an exchange of fresh air in the lungs, and generally prepare the body for the harder work which will follow.

Introductory Activities. Informal running and jumping, the children moving about freely, and simple running or ball games, which will keep everyone moving, may be used to begin the class. A quick lively opening of this kind puts the children in a mood to enjoy the lesson.

It is important to set the class going with a swing; therefore no new work should be taught in this group, and it should not take more than 5 minutes.

B. Principal Exercises

Extension Exercises. These exercises counteract "round back," improve the posture of the shoulders, and increase the power of expansion and the flexibility of the chest. Many arm movements are good to use in this group.

Supplementary Exercises. Movements which cause a strong stretching upwards or bending backwards of the dorsal spine are followed by a supplementary movement which has the opposite effects, relaxation and forward bending. This also corrects a tendency to hollow the back, which may occur in a movement like forward-lying, trunk bending backward.

Trunk bending, forward and downward, increases the flexibility of the spine and stretches the "ham string" muscles at the back of the legs. If these muscles are constricted poor posture results. This exercise also has a strong abdominal effect.

Heaving Exercises (Arm Exercises). These exercise the shoulder and elbow joints and develop the arm and shoulder muscles. They improve the carriage of the shoulders.

Arm exercises may be classified into two divisions: (1) arm exercises upon apparatus as, for example, hanging from a beam by the hands. These apparatus exercises are called "heaves"; (2) free standing arm exercises. In these the same muscles and joints are used but less strongly than in the true "heaves."

Balance Exercises. Balance exercises train poise and effect

economy of effort in movement. Poise depends upon balance, and, to maintain it, all the muscles concerned in voluntary movement must be under control. The muscles are controlled by the nervous system, and balance exercises develop the power of brain, nerves, and muscles to work harmoniously together and so produce accurate and effortless movements.

Leg Exercises. These include informal marching and running and all kinds of foot and leg movements, rhythmic jumps and dancing steps.

Running affords one of the best means of exercising the lungs and of producing deep breathing.

Lateral Trunk Exercises. These are of two types. (1) Trunk flexion sideways, in which the spinal column is arched from side to side. (2) Trunk turning and rotation of the spinal column.

In these movements the abdominal muscles are brought strongly into action. These exercises improve the circulation by stretching the big veins of the trunk, stimulate digestion and maintain the mobility of the spine; the movement of the ribs helps to increase the flexibility of the chest walls.

Abdominal Exercises. The importance of these movements can hardly be overestimated. A normal development of the abdominal muscles is essential for good health. These muscles, which form the fronts and sides of the abdominal walls, must be strong to hold the internal organs in place; if their tone is poor they sag, and an abdominal slump results, the organs bear down upon and obstruct one another, and their pressure upon the deep-seated network of nerves in the abdomen may cause serious nervous symptoms. Inadequate support also leads to constipation, indigestion, and frequently to menstrual disorders.

For all these reasons exercises in the lateral trunk and abdominal groups are particularly necessary for senior girls.

Round back may be due to a habitual position of stooping which causes the abdominal muscles to become so contracted that the chest cannot be fully expanded, with the result that the back becomes rounded. The opposite condition of hollow back is caused by weak, slack abdominal muscles and tension of the muscles at the back of the waist. Movements which will help the normal development of the abdominal muscles and so counteract tendencies to these deformities are therefore important for children.

Some of the most effective types of abdominal exercises are those taken in back-lying or sitting positions, because when these starting positions are used the movement can be localized to the abdominal muscles. Children generally find these "floor" movements attractive and enjoy doing them.

Jumping, Vaulting, and Agility Exercises. Besides being strong leg movements, these are vigorous general exercises which bring all the muscles into play. They cultivate nervous and muscular

control and quick and accurate judgment for movement. There is an element of daring about many of them which appeals to the children.

Breathing. Deep breathing exercises carried out to commands are not now taught as part of the lesson. They are unnecessary because the Gymnastic Table consists of activities which make the children breathe deeply all the time. During exercise the body needs more oxygen, and the breathing is automatically quickened and deepened to supply the demand.

Running, jumping and skipping are all of value for causing a moderate amount of breathlessness and changing the air in the lungs.

Children should be taught to breathe through the nose and keep the mouth closed. The reason for this should be explained, e.g. that the nose acts as a filter to keep germs and other harmful things from entering the air passages.

Juniors and Infants should be taught how to use their handkerchiefs properly, putting them over the nose without pinching the nostrils together.

C. General Class Activity

This is fully dealt with in Sections II and III, pages 14 and 18.

DESCRIPTIONS OF CHIEF POSITIONS USED FOR GYMNASTIC EXERCISES

1. **Standing Position.** Inner borders of the feet together, or heels together and feet at an angle of not more than 30 degrees. Knees straight, but not stiff. Waist in. Shoulders to front and held low without tenseness. Head erect. Arms hanging easily by the sides, fingers together and slightly flexed.

Command. "Stand . . . erect!"

2. **Close Standing.** Standing position with inner borders of feet touching.

3. **Astride Standing.** Feet pointing straight forward, two foot lengths apart. Weight evenly distributed.

4. **Wide Astride Standing.** As above. Feet three foot lengths apart.

5. **Toe Standing.** Standing with heels raised as high as possible.

6. **Crouch Standing.** Knees fully bent and apart. Heels together. Elbows straight. Hands on the ground between the knees. Back flat. Also taken with finger tips touching the ground.

7. **Knees Half Bend.** Heels raised, knees bent outwards to half-way position.

8. **Knees Full Bend.**

9. **Kneeling Position.** Knees may be slightly apart. Body upright. Heels together. Feet either stretched or with the ankles stretched, and the balls of the toes against the ground.

10. **Kneel Sitting.** As above, but sitting back upon the heels.
 11. **Half Kneeling.** Kneeling on one knee (Fig. 1).
 12. **Four Foot Kneeling** (Fig. 2). Kneeling on all fours. Back straight. Arms straight with the hands on the ground immediately beneath the shoulders. Hip joints directly above the knees.

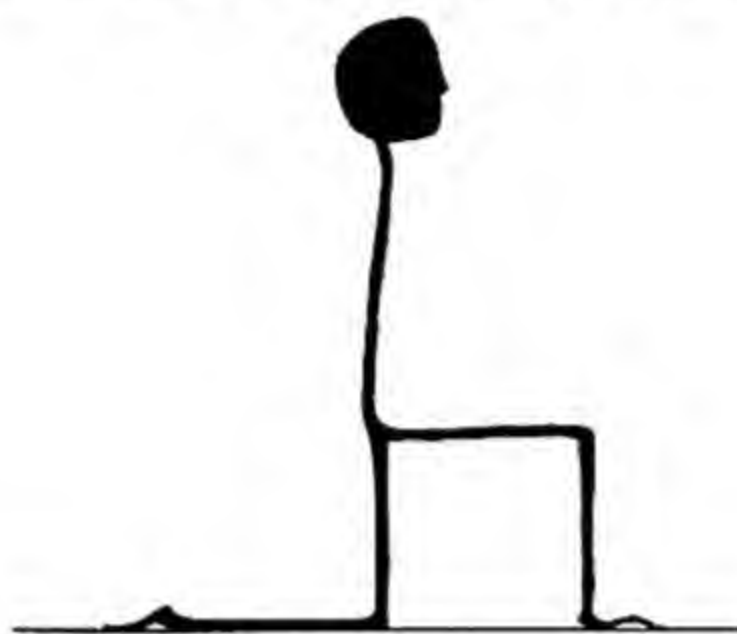


FIG. 1

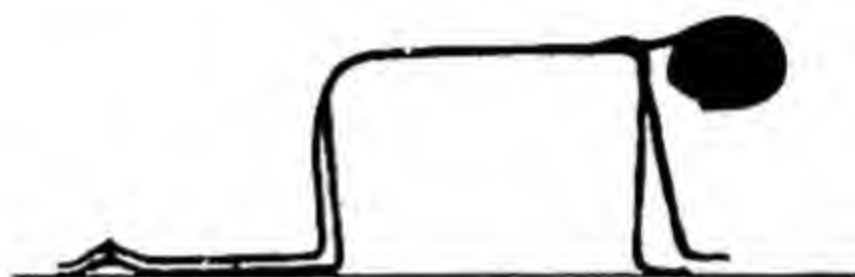


FIG. 2

13. **Cross-legged Sitting.** Sitting with legs crossed, outer borders of feet touching the ground. Knees pressed outward. Hands on the knees or grasping the toes, or with the arms outside the knees, or with the hands resting lightly on the ground at the sides.

14. **Crook Sitting.** Sitting with knees bent and slightly apart. Soles of feet on ground. Hands on knees or at sides.

May also be taken (a) with knees and legs together (b) with knees wide apart and soles of feet together.

15. **Long Sitting.** Legs straight out in front. Knees and feet together. Hands resting on the ground at the sides.

16. **Astride Long Sitting.** As above but with the legs apart.

17. **Crook Lying** (Fig. 3). Lying on the back. Knees bent. Arms at the sides.



FIG. 3

18. **Lying.** Lying on the back with legs straight and together.

19. **Forward Lying** (Fig. 4). Lying face downwards. Head and neck in a straight line with the body. Arms to the sides, or folded

in front with one hand on top of the other and the chin resting on the hands.

20. **Prone Falling** (Fig. 5). Body supported on hands and toes. Hands immediately under the shoulders, arms straight.

21. **High Prone Falling**. As above, but with the hands supported on a form or other apparatus.

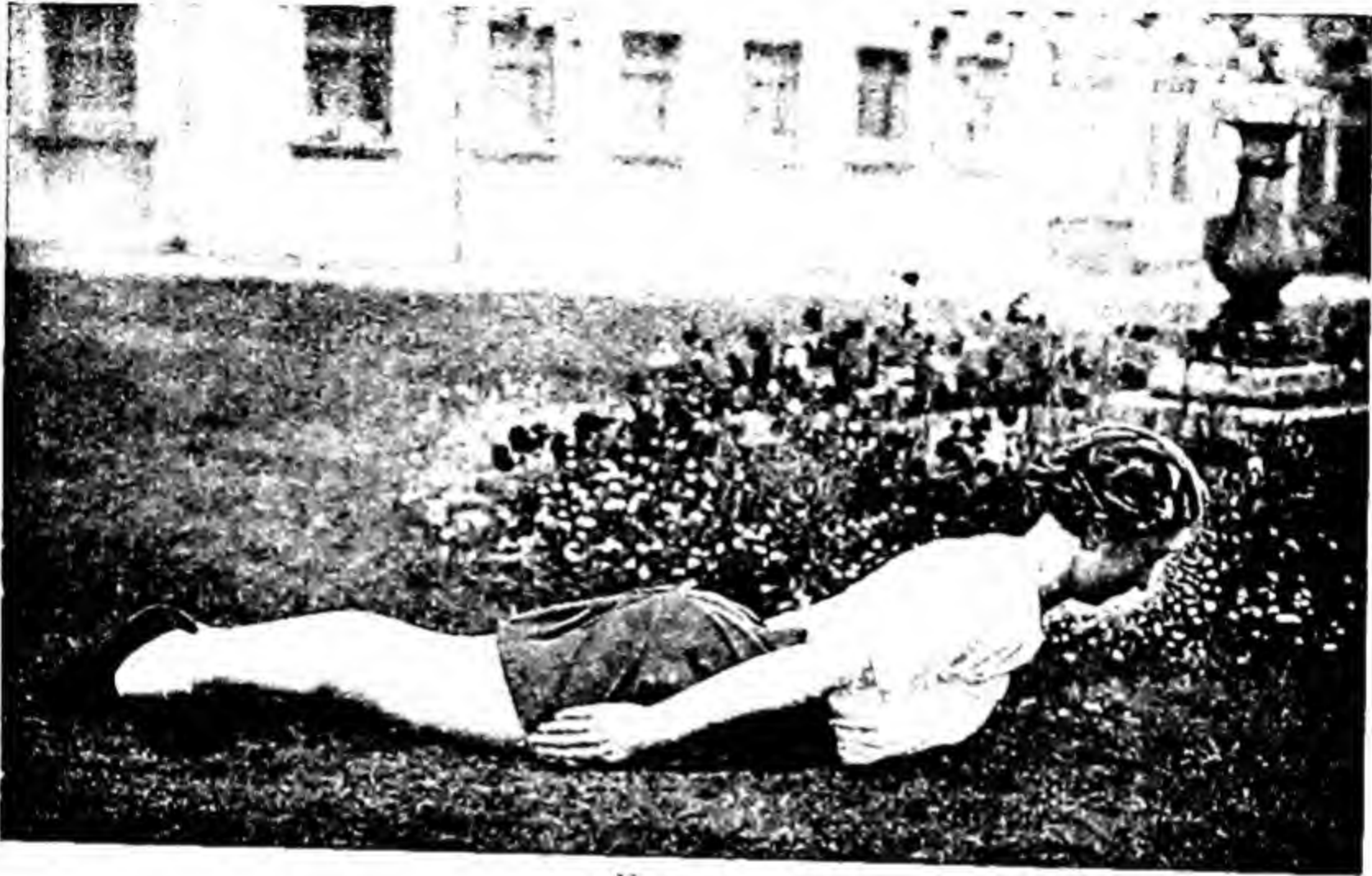


FIG. 4

22. **Low Prone Falling**. Hands on the floor. Feet supported on form.

23. **Side Falling**. The body turned sideways is supported on one hand and the outside of one foot. Feet together. Legs straight.



FIG. 5

Supporting arm straight with hand directly beneath the shoulder.

24. **High Side Falling**. As above with hand supported on a form.

FOOT MOVEMENTS

25. **Foot Placing Sideways, Outward, Forward, or Backward**. The foot is moved two foot lengths. The weight must be evenly

distributed between both feet. The outward position is mid-way between the sideways and the forward positions.

26. **Foot Placings on the Toe.** The same directions as above with the weight on the standing leg. The toe of the other foot touches the ground, knee and ankle stretched.

27. **Leg Raisings.** Standing on one leg, the other leg raised in any of the above positions, knee and ankle stretched.

28. **Lunge Positions.** The foot is advanced three foot lengths sideways, forward or outward. The weight is carried over the forward knee which is fully bent. Body in line with the straight leg.

29. **Toe Lunge Backward.** Leg carried straight backward, front knee fully bent. Body in line with back leg.

POSITIONS OF THE ARMS

30. **Bend Position.** Used as a starting position for arm stretchings. Forearms rotated outward, fingers flexed and placed outside the shoulders.

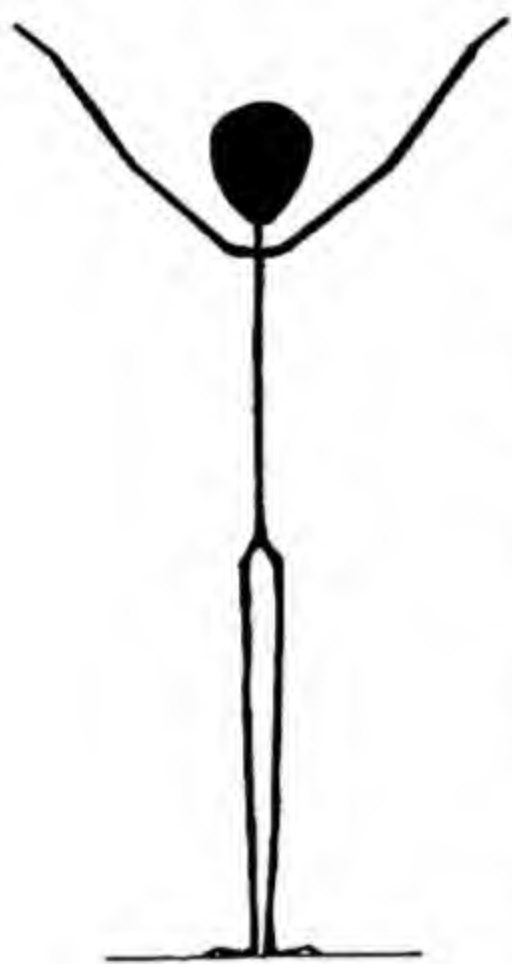


FIG. 6

31. **Yard Position.** Arms raised sideways in line with the shoulders. Palms downwards.

32. **Arms Forward.** Arms forward in shoulder height, shoulder width apart with palms facing.

33. **Arms Backward.** Arms raised slightly backward.

34. **Midway Stretch.** Arms halfway between Upward Stretch and Yard Positions. Palms upward (Fig. 6).

35. **Upward Stretch.** Arms straight above head, shoulder width apart, palms facing inwards.

36. **Midway Downward Stretch.** Arms midway between yard and downward stretch positions.

37. **Ring Position.** Arms forming an arch above head, with the finger tips touching or the hands joined.

38. **Half Ring Position.** One arm curved over head.

39. **Head Rest.** Tips of first and middle fingers touching and resting lightly on the top of the head. Wrists straight so that the palms do not touch the head. Elbows pressed back.

40. **Half Head Rest.** One hand raised as above.

41. **Arms Across Bend.** Arms raised to shoulder level sideways with elbows fully bent and pressed back. Hands in line with the wrists. Palms down.

42. **Chain Grasp.** Joining hands in ranks or circles.

43. **Shoulder Grasp.** Hands resting on each other's shoulders.

The various arm positions may be taken (a) with the fingers

together and extended without stiffness; (b) with the hands loosely clenched. In the descriptions of the exercises the first of these methods is intended unless it is otherwise stated.

LIST OF ABBREVIATIONS

The following abbreviations can be used in describing movements when writing out lists and tables—

TERM	ABBREVIATION	TERM	ABBREVIATION
Across . . .	acr.	Lying . . .	ly.
Alternate . . .	alt.	Movement . . .	movt.
Arm(s) . . .	A.	Opposite . . .	opp.
Backward . . .	backw.	Position . . .	pos.
Back lying . . .	bk. ly.	Prone . . .	pr.
Bend . . .	bd.	Raising . . .	raise.
Close . . .	cl.	Right . . .	R.
Clapping . . .	clapp.	Running . . .	runn.
Cross-legged sitting	X sit.	Sideways . . .	sidew.
Crook lying . . .	crk. ly.	Sitting . . .	sit.
Crook sitting . . .	crk. sit.	Skipping step . . .	skp. stp.
Downward . . .	downw.	Slipping step . . .	slp. stp.
Foot (feet) . . .	ft.	Standing position . . .	st. pos.
Forward . . .	forw.	Stretch . . .	str.
Grasp . . .	grsp.	Swinging . . .	swing.
Half . . .	$\frac{1}{2}$	Support . . .	supp.
Knee(s) . . .	kn.	Turning . . .	turn.
Kneeling . . .	knl.	Upward . . .	upw.
Left . . .	L.	Yard . . .	yd.
Lowering . . .	low.		

SECTION II

SOME PRACTICAL TEACHING HINTS

SOME of the changes which have taken place in teaching methods have been touched upon in Section I. The trend of modern work may be briefly summarized as follows—

1. Less formality.
2. More free activity.
3. An increase in agility work and movements which have a loosening and suppling effect.
4. More continuity, attained by linking movements together whenever possible, and by the use of rhythmical exercises.

All these changes, though excellent in themselves, bristle with dangers for the inexperienced—and for the experienced—teacher. In the modern revolt from formalism and stiffness there is a tendency for the pendulum to swing too far in the opposite direction.

A certain principal who complained that her gymnastic mistress had made the girls so loose-jointed and supple that they could not stand up properly put her finger upon a serious defect which may, and does sometimes, result from a faulty application of modern methods.

The results of physical training should be shown in the erect and easy bearing of those who have undergone it. Postural training is of supreme importance. From the first to the last moment of the physical training lesson be on the alert to prevent and correct postural faults.

See that all exercises are started and finished with a good carriage. Give a reminder such as "Stretch up," "Stand tall." Be on the look out for postural faults in walking, and correct them quickly while the children are moving, with commands such as "Heads up," "Let your arms move," "Heels down first," etc.

Rhythmic Exercises. When taking movements rhythmically, care must be taken to ensure that the class keeps a good posture throughout the exercise. Poorly taught, a rhythmic exercise will not demand sufficient effort and good posture, and can degenerate into something very like the old fashioned mechanical "musical drill."

Faults should be corrected by stopping in a position and holding it.

The exercise should be started and finished with good posture and correct position.

In rhythmic exercises the strongest effort comes on the accented movement. In counting, the insertion of "and" between the counts will sometimes help to keep the rhythm going.

Example. Stride standing rhythmic trunk bending sideways with a clap against the side of the leg. Trunk bending to the left and clap count (1) stretch up to standing position count "and," at once bend and clap to the right, count (2). The counting and the movement must be even and continuous. "1! and 2! and," etc. Vary by using words, "Left! and Right! and." When a movement has been practised to counting, the class should try to keep the rhythm for themselves.

Rhythmical tappings and clappings can be of value but must be used sensibly and not for effect. Take for example, "Trunk pressing forward-downwards with three taps and a clap on the ground 1-4, Trunk raise, three finger bouncings against the sides and a hand clap in front 1-4." Here there is a rest in standing position from the effort of trunk bending downward, and the continuity of movement holds the interest.

Continuity does not imply hurry, but movements should be linked up with each other whenever practicable. If, for instance, the class is doing skip jump and the next exercise is to be in cross-legged sitting position, there is no need to stop the jump and then give a command for cross-legged sitting, the command can be given while the jump continues, or the class can sit after a named number of jumps.

Set the class going with a lively opening activity and keep the lesson moving; one section should follow the next without any interruption in the flow of the work.

Do not form the children into files but let them space out freely, each placing herself so that she has room to move and to see (see frontispiece). A teacher as "audience" may appreciate the tidy appearance of a class in straight lines, but such rigid formations mean that the children go to the same places lesson after lesson and exercise no individual judgment.

Relaxation should be given by changing the activity. Give light marching after running or skipping, and a leg exercise or a free activity after a strenuous arm and trunk movement.

Commanding. The "Drill Sergeant" manner is definitely out of place. Commands should be as few and simple as possible. With adequate breathing and clear enunciation the ordinary speaking voice should be sufficient for the preparatory part of the command and for giving directions; the executive word should be emphasized but not shouted. The tone of the voice should indicate the type of movement wanted. For example "Arms sideways—lift!" Here "lift" would be spoken lightly with a rising inflexion; while in forward lying trunk raising slowly, the command "Raise" will be drawn out sufficiently to indicate the deliberate movement required.

Corrections. Give general corrections as far as possible in the form of stimulating coaching while the class is working, but do not

talk too much. Try to make some improvement every time an exercise is repeated. If an exercise has been misunderstood, or a general correction proves insufficient, give a quick demonstration drawing attention to the correct position.

Individual corrections may be given while going round the class. "Head up," "Waist in," etc. Avoid stopping the class and singling out one girl for special correction. A minute or two spent with her afterwards trying the right position without an audience will prove far more profitable.

TEAM WORK

The class should be divided up into teams or groups which can work under the direction of their own leaders during the general activity section of the lesson.

The team system of organization has the following advantages—

1. Everyone is actively employed all the time.
2. Instead of being limited to one activity, the girls have the added interest of moving on to something different.
3. The teacher is able to coach one team, or to teach it a new activity, while the others are practising something they have already learned.
4. Leaders develop a sense of responsibility, and the girls learn to co-operate with each other.

Explain what the team system is and how it works. The girls will understand quite readily that by its use they will get more turns at jumping, vaulting, etc. and more practice and chance of improvement. Tell them that they are going to choose their own leaders and that when they have chosen them they must be loyal and helpful to them and to their teams.

If possible leave the choice of leaders to the class. This should always be done with senior classes and is usually the best method for juniors. If you think that a class is not capable of choosing, make a panel of names of the most suitable girls and let them choose from this. Otherwise names should be proposed, seconded, and voted for.

If there are four leaders to be chosen, have eight names proposed to vote upon, and allow each member of the class to vote for four of these. Each should write her votes down on a slip of paper and sign it. When the votes have been collected have two of the girls to help count them. A properly organized ballot is good training.

When the leaders are chosen let them pick their own teams. Give the one with the least votes the first choice; then let each in turn have the first pick at the beginning of each new round. Each leader can choose her own vice-leader from her team.

Each team should have a colour. Bands of braid can be worn by

leaders; they should be about 1 in. wide and made from lengths of 36-42 in. If there are four colours to choose and four teams write the names of the colours on four slips of paper and let the leaders draw for them.

The Leaders' Work. Give the leaders duties at once and increase these by degrees. First tell the leaders where their teams will go for team practice and send them to stand in those places; then command, "Teams by the side of your leaders—run!" Commend the team which gets to its place first and forms up in an orderly way. The leaders should direct their teams to get out and place ready whatever apparatus is to be used, indicating clearly those who are to fetch it.

During team practice they must see that each member of the team takes her turn and follows out the directions which were given when the activity was taught. Note here that all team activities practised under leaders should have been first of all learned with the teacher. Team leaders are to direct and coach, but not to teach new activities.

Later the leaders can command their teams to run to team places or change activities. They can be responsible for marking and keeping records of jumps, etc.

Leaders and vice-leaders should give support if it is needed for any activity. For example, in jumping from a height the leader may do the exercise while the vice-leader stands ready to support, and the leader can then support the others in turn.

If teams are divided into two sections for a game or practice, the vice-leader takes charge of one half; she also acts as leader if the leader is absent.

Occasionally, let each team work in turn while the others watch. Correct and criticize each performance, but do not forget to find something to praise as well if you know that the girls have been working really hard.

Hold a team competition sometimes and award points for posture, good style, order, etc. Do not overdo this though; once or twice in each term is sufficient.

Leaders may give corrections and help to their teams but should not be expected to do this too early in the training. Change the teams round during the practice so that they all have a turn at each activity. Allow the same amount of time for each turn.

Do not tell the girls that they must keep silence during team work. If you do you will use up a great deal of time and energy in trying to enforce the rule, and take all the life and joy out of the lesson. If they have plenty to do and have been taught to follow smartly in turn, they will have very little time for conversation. Get the leaders to co-operate with you and to take a pride in having their teams work in an orderly and business-like way. Check any disorder or shouting at once. A well trained and disciplined class

will soon respond to the standard required. There is a difference between noise and a cheerful hum of activity.

Most classes will divide best into four teams. A small class might have three, a larger one four to six. There should not be less than six or more than eight girls in each.

HOW TO ARRANGE THE WORK

The lists of movements from which to compile lessons have been arranged in approximate progression under age groups. Though suitable to the ages stated, many of the exercises for juniors can be carried forward for the older girls and used throughout the course.

In a book of this size it is not possible to give an exhaustive selection of exercises, but it is hoped that those given will prove useful to show the type of work required, as well as forming supplementary lists for reference. Five specimen tables are given to show how the lessons should be arranged. Ready-made tables cannot be used without adaptation; they are only guides. The teacher must choose the exercises to suit the needs of the class. It may, for example, need special attention to posture. The majority may be lacking in lightness and spring, or stiff in their movements, and will need more dancing, games, and loosening exercises.

A lesson scheme for each term should be made out.

After writing out the first table compile Table II, choosing exercises to which the class may reasonably be expected to progress. As the exercises in Table I are learned substitute the new ones from Table II. The number of lessons needed before a complete new table is taken will depend upon the rate of progress. The class will find some exercises easier than others. Change from one table to the next gradually, a few exercises at a time. Change the easier ones first, the harder ones later, substituting exercises from the same group in the next table. Do not change too soon; when the class has become used to the plan of a lesson the work goes forward well.

Prepare each lesson beforehand. To make a term's scheme it is a good plan to take a large sheet of paper and rule it out into columns, one for each week, and to rule transverse divisions to correspond with the groups of the table. One of these sheets can be made out for each month. The first table is written down in the first column; a note is made in the other columns as each lesson is taken of the fresh exercises from Table II as they are taught. All the work set out in the first table should have been covered so that the girls can do it reasonably well before passing on to an entirely new table.

Progression. Progression in gymnastics can be made in two ways: (1) By an improvement in the way the exercises already learned are done; (2) by making the exercises more difficult.

The balance group of exercises provides a good example of

progression by difficulty. First easy ground exercises; then exercises on the broad side of the form; next on the narrow side with support, and finally alone.

The various "leading-up" exercises which are used in teaching an activity are progressions upon each other; in leap-frog or handstand for example, or in the preparatory stages of a vault.

Exercises of the same type can be made harder by increasing the muscular action; thus kneeling, trunk falling backward with the arms by the sides, is easier than trunk falling backward with the arms stretched above the head, because of the weight of the arms and the increased leverage in the latter position.

With junior classes the first kind of progression, i.e. improvement in performance, is the type mainly used; it is chiefly in the senior work that there will be progression by difficulty. Every lesson, junior or senior, should show some improvement on the one before.

The lessons can be varied without altering the main plan of the table. If the children come to the class dull and lethargic owing to weather conditions or class work, for example after an examination, shorten the time given to formal exercises and give more to games or dancing. Do not give exacting work on a dull, heavy day or in the middle of a heat wave; you will only tire yourself and make the girls cross and sulky.

Give the children plenty of vigorous work. It is movement that they crave for and need, and it is your business to direct it rightly.

SECTION III

SPECIMEN LESSONS

THE specimen lessons in this section include work with gymnastic forms; there are also some examples of group work using only hand apparatus. In schools which have no gymnastic apparatus a great deal of activity is possible using ropes, hoops, etc. A list of necessary small apparatus of this kind is given, also one of portable apparatus which most schools should be able to provide.

The specimen tables showing the plan of a lesson are intentionally short. Inexperienced teachers (and others too sometimes!) often pack too many exercises into the body of a table leaving insufficient time for group work. The children find group work the most enjoyable part of the lesson and it gives vigorous exercise to the whole body. Free standing exercises which include the big trunk movements, postural exercises, arm exercises, etc., have great value and must be taught, but most of their value is lost when too much is attempted. A succession of these exercises, which the children know are eating up the time they are longing to spend in free activities, will bore the children, and they will do the exercises half-heartedly. A few well done and repeated a sufficient number of times will have far more effect. Their purpose should be explained and good performance demanded; taught in this way the exercises have both value and interest.

All the main types of movement should be included in a lesson but without unnecessary repetition. For instance if there are somersaults in the group work there is no need to give a free standing abdominal exercise as well. Lessons, taken out of doors whenever possible, should provide opportunities for practice which will help in games and athletics. These activities can be included in group work or taken as a class.

THE LESSON

The aim of the modern lesson is to get in as much worth-while exercise as possible and so to train the children that natural and well co-ordinated movement will become habitual. All time-wasting formalities have been cut out. More than half the lesson is spent in general activity, agility and apparatus work. Sometimes the children work in twos or in small groups helping each other, sometimes in teams. They have opportunities to work as individuals practising activities and skills at their own pace. Informality does not imply slackness and loss of discipline, for good order is essential for safety and there must be instant obedience to commands. Control is

necessary to move gymnastic apparatus carefully and quietly. Small hand apparatus must be given out and collected in an orderly way.

Some movements are done together to a common rhythm, others require a definite formation: lines, files or circles, or groups of three, four, etc., to which the children must be able to run quickly. Although they should not be forbidden to speak throughout the lesson there are times when they must be silent as, for example, when they go to their places for team practice. This makes a point of control and gives the teacher an opportunity of seeing that all apparatus is safely arranged. When the time comes to change round activities there should be instant quiet on the command "Stop!"

Children like to be set a high standard of behaviour and performance. Given interesting activities to work at and encouragement to excel they will be too busy and eager to get on to waste time chattering.

THE TABLE

A. Introduction

Vigorous and free activities which will quicken the circulation and get the muscles working. These can be free practice of agilities, leap-frog, hand-stand, etc. Free practice with hoops, balls, skipping ropes or any other light hand apparatus, or a series of jumping activities might be arranged.

When the children have had the joy of free movement for a few minutes, are thoroughly warmed up and probably slightly breathless, they will be ready for the next part of the lesson.

B. Principal Exercises

Trunk Exercises. Big movements using the large muscles of the trunk.

Leg Exercises. These can include a large variety of movements. One which helps to train running or jumping could be given in one lesson, a dance step or rhythmic leg exercise in the next, or there might be time for both, one at the beginning of the lesson and the other before the group work.

Extension and Supplementary Exercises. These should always be given. See page 33.

Balance Exercises. These are most important but, if, for instance, a balance exercise on forms is included in the group work, there is no need to have one in this part of the table.

Arm Exercises. If arm movements have been used with the trunk or posture exercises it may not be necessary to give more here.

Abdominal Exercises. There should always be an exercise with special abdominal effect. If however there is an abdominal exercise in the team work or the abdominal muscles have had strong work in any of the previous exercises, it can be left out here.

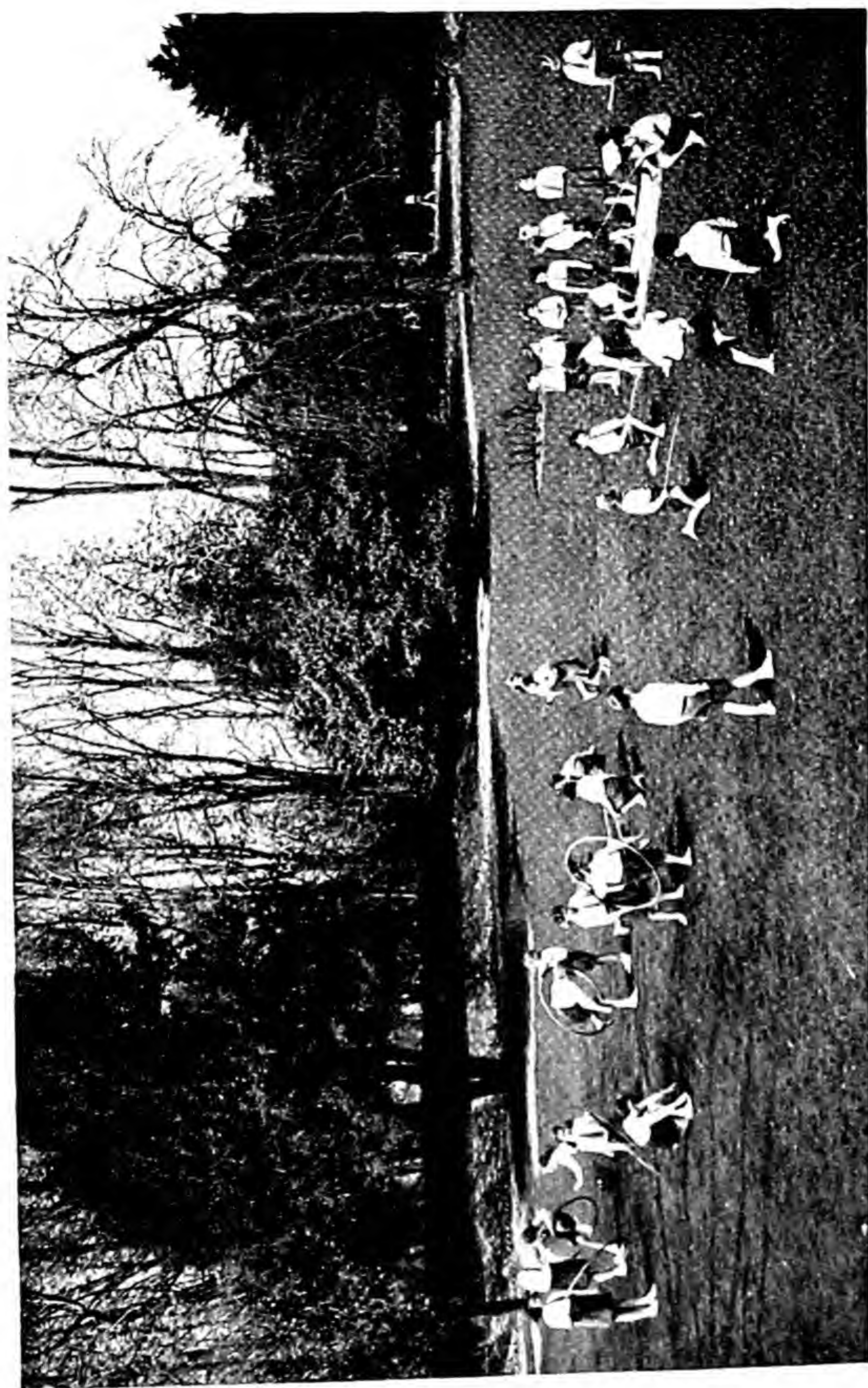


FIG. 7

C. Team Work

Jumping, vaulting, agilities, ball practice, etc.

Final. End with a simple exercise emphasizing good posture or else by telling the children to "stand tall" taking their best positions. It is a mistake to let them rush straight off after their team work. The good results of physical education should show in the children's habitual posture, and they must be made to realize that this is one of the main objects of the training.

Specimen Lessons

The following tables or lessons show how a lesson may be planned for a 30-40 minutes period. The teacher may include more exercises and activities according to the time available and the progress already made by the class. For hints on arranging the work, see page 18.

LESSON I. CHILDREN 8-9 YEARS

A. Introduction

1. Jumping over cane held by partner.

B. Principal Exercises

2. (a) X sit., sit erect grasping toes, (b) X sit., bending forw., to put head on ground, uncurl.
3. **Leg.** (a) Free running; (b) horses and drivers.
4. **Balance.** Ring grasp facing partner. Hop round in place in kns. full bend, and stop steady.
5. **Trunk.** Std. st., trunk bending sidew.
6. **Arm.** Std. st., single arm circling.

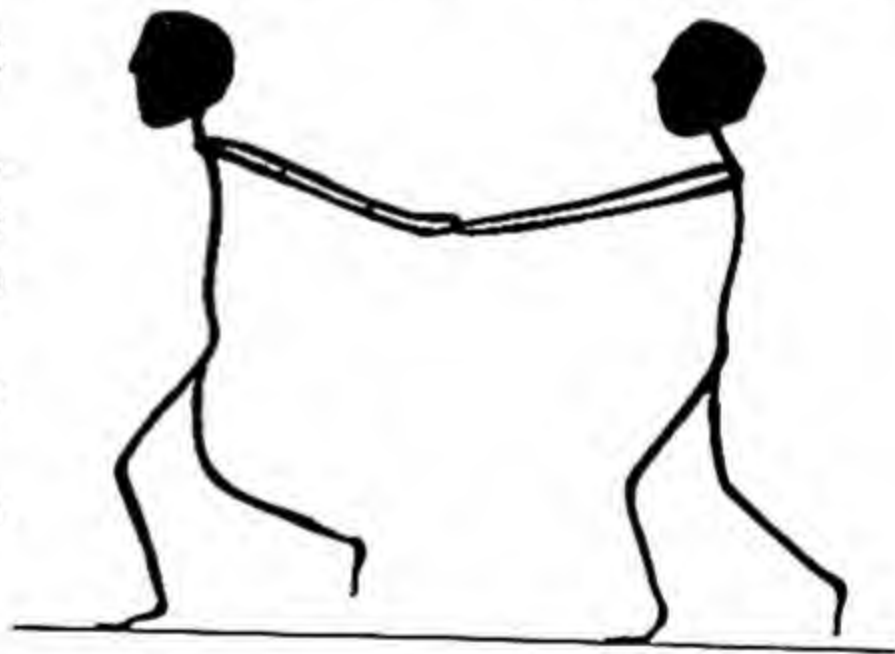


FIG. 8

C. Teams

- (1) Forward lying, pulling along bench. (2) Roll over somersault (mat). (3) Crouch jump through hoop. (4) Jump the spinning hoop.

Final. Good walking and free spacing.

Notes

1. Children spaced freely in pairs. One holds small cane in $\frac{1}{2}$ Knl. pos., the other takes a short run and jumps over. The cane is held lightly and dropped if touched. Change over after several turns. Let the children have a good go at jumping freely first. Then stop them and stress your teaching points, e.g. take off close to cane, controlled crouch landing with an instant stretch up and run on.

3. (a) Run lightly, spacing well and avoiding others; (b) in twos, the "horse" in front, the driver holding the "reins" behind (Fig. 8, page 21). Move about freely, the children taking turns as drivers.

4. Keep back straight and head up.

5. Take with a rhythmical swing, 1, and 2, and *over*, and *over*, etc.

Teams. (1) See page 40.

(2) Teacher in charge. See page 65.

(3) One child in $\frac{1}{2}$ knl. pos., holds a large hoop so that it is vertical and just above the ground. Partner does crouch jump through it. (See No. 5, page 65.)

(4) A small hoop between two. One spins the hoop, the other jumps over it as many times as possible before the spin finishes. Practice spinning the hoops before trying the jumping.

Final. See page 51.

LESSON 2. GIRLS 10-11 YEARS

A. Introduction

1. Free practice with small balls. Skipping with individual ropes.

B. Principal Exercises

2. **Trunk.** Std. st., trunk bending sidew. to place a bean bag as far out to side as possible.

3. **Leg.** Skip jump with rebound over bean bag from side to side.

4. **Extension and Supplementary.** (a) Std. st., trunk bending backw., to drop bean bag behind head, (b) trunk bending forw. downw., to pick up bean bag.

5. **Balance.** (a) Balance walk on forms with bean bag on head; (b) balance walk on forms throwing and catching bean bag.

6. One foot forw., free arm circling.

C. Teams

(1) Hand-stand.

(2) Aiming small balls at targets.

(3) Run through rolling hoop.

(4) Crouch vault over forms two high.

Final. Standing, show good posture.

Notes

1. Half the class with small balls and half with skipping ropes. Change over.

2. Holding bean bag in right hand. Bending right knee and keeping left knee straight, place bean bag on ground as far sideways to right as possible; stretch up; bend to right and pick up bean bag; bend and place bean bag as far forward outward as possible. Pick up bean bag and change it to left hand; repeat to left. The feet

must not move. Take to numbers first. Later as a free practice to try and beat own performance. (See frontispiece.)

3. Bean bag on ground in front of feet. Free practice first. Then stress teaching points, e.g. lightness, good body and ankle stretching in upward jump, high spring.

4. See page 35.

5. Each team in a well spaced file behind own form. (a) See No. 20, page 44. (b) See No. 23, page 45.

6. See page 38. Place left foot forward with knee slightly bent and left hand on knee. Circle right arm. Repeat other side with right foot forward.

Teams. (1) See No. 9, page 66.

(2) Target can be a circle chalked on the wall, or a skittle or rounders stump on the ground, etc.

(3) One girl bowls large hoop, the other runs through as many times as possible. Later progress to each bowling own hoop and running through.

(4) See Fig. 27, page 65.

Final. When apparatus has been put away, space freely and take good standing position without stiffness.

LESSON 3. GIRLS 12-14 YEARS

A. Introduction

1. Free practice of agilities, cart-wheels, hand-stands, leap-frog, etc.

B. Principal Exercises

2. **Trunk.** In twos, std. st. pos., side by side, with inside feet touching, trunk bending sidew. with one arm swinging sidew. upw. to try to touch partner's shoulder (see Note 2 below).

3. **Leg.** Jump with 1, 3, or 5 steps start.

4. **Extension and Supplementary.** (a) Crk. sit., finger supp. sidew., tap ground to sides with finger tips (1); tap with finger tips palms forward (2); swing arms sidew. upw., tapping finger tips above head (3); swing arms sidew. down to tap ground with palms forw. (4); Repeat several times. (b) Std. st., trunk bending forw. downw., loosely, "uncurl."

5. **Balance.** Holding a bean bag, one knee raised. Put bean bag on ground near standing foot keeping other knee raised, count 1-2, pick bean bag up again, count 3-4.

6. **Abdominal.** Crouch jump holding a bean bag between feet and throwing it up. Later throw to partner.

C. Teams

(1) Run up inclined form, high spring off end.

(2) Squat vault with two supports.

(3) Hand-stand with supports sitting on bench.

(4) Running jump in threes over the gap.

Final. Arm raising sidew., with heel raising.

Notes

1. Girls space out for free practice.
2. *Both* bend sideways to left, A on right swings outside arm sideways upward overhead trying to touch partner's shoulder, B does not move arms. Repeat several times, then both bend to right, B trying to touch A's shoulder.
3. Practice alone freely. Later in twos jumping over a cane held by partner.
4. (a) Sitting up straight with head erect and chin in. The palm turning forward movement must be made from the shoulders. Test by making the class hold the position and asking how many feel the movement in the shoulder blades. Repeat the whole exercise several times and hold the last position with palms forward for a few seconds, then command "*Relax*" and let them sit easily.
(b) See page 34.
5. The knee of the standing leg is bent in order to pick up the bean bag, the position of the other leg should not alter.
6. Practice at first individually for high crouch jump and good throw. Later throw for partner to stand and catch.

Teams. (1) See No. 9, page 63.

(2) See No. 6, page 60.

(3) See page 68 and Fig. 29.

(4) See No. 5, page 60. A "ditch" 3-4 ft wide is marked on the ground. The jumper takes a high bound over the gap with one foot forward. The supporters carry her across giving support till she lands on the forward foot. Can also be done with two forms broad-side up placed end to end with a gap between. The jumper runs along the first form and bounds over the gap continuing her run along the second form. Support is given till she has run off the end of the second form. Later a skittle to be jumped may be put on the end. At first have a gap of about 1 ft. Increase it later.

LESSON 4. GIRLS 15-16 YEARS

A. Introduction

1. Run and jump over a series of ropes.

B. Principal Exercises

2. **Trunk.** Std. st., trunk circling, "wheel turning."
3. **Leg.** Crosswise jump twice with rebound, twice without rebound, and once with rebound 1-8.
4. **Extension and Supplementary.** (a) Knl. pos., back to back, pass cane overhead. (b) Knl. sit., trunk bending forw. downw.
5. **Balance.** Practice horz. $\frac{1}{2}$ st. pos.
6. **Arm.** St. 2 arm swinging forw. and backw. twice, circling forw. upw., sidew. down. once, with a skip jump on the circling.

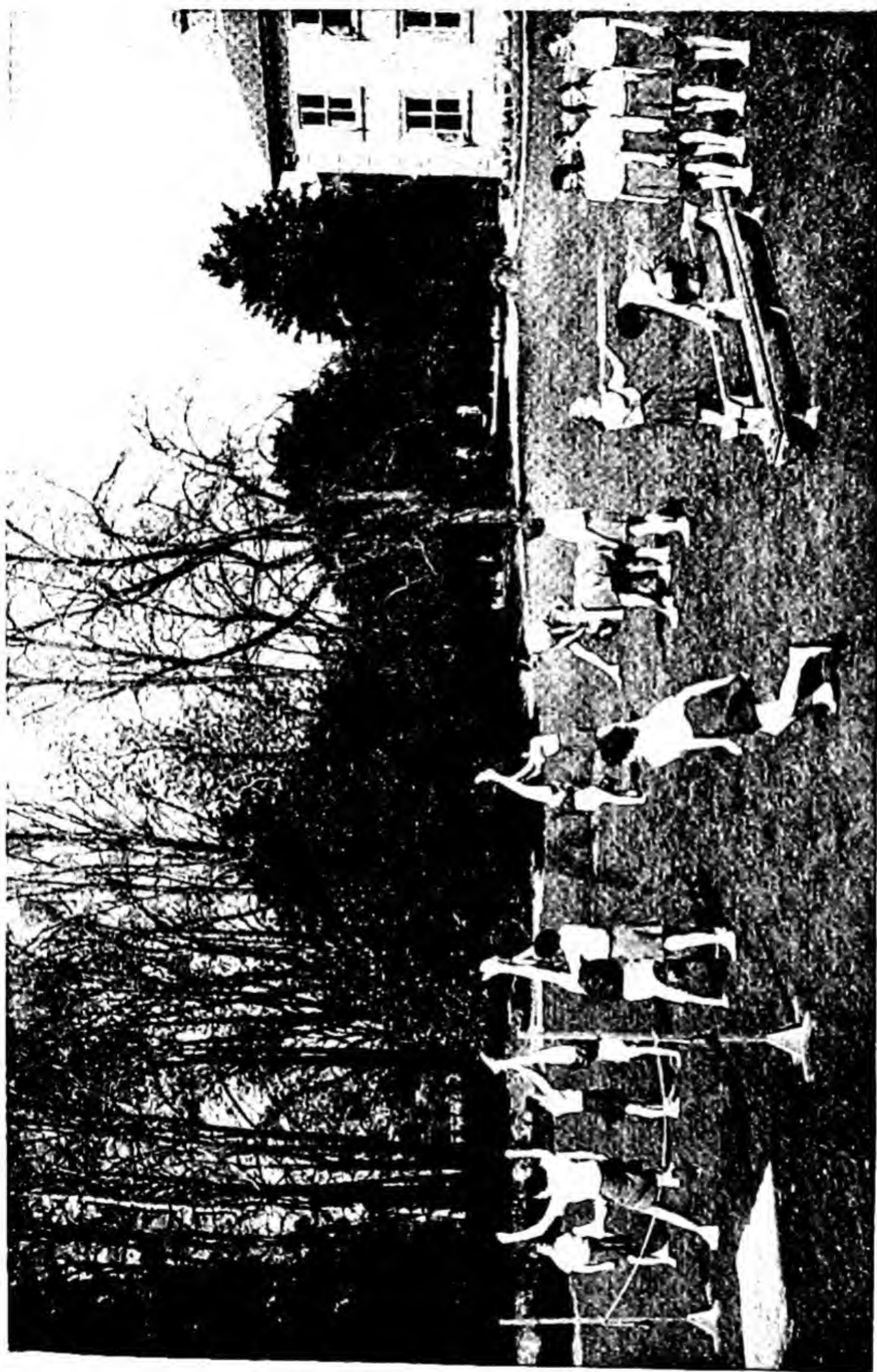


FIG. 9

Am. Mus. Nat. Hist.

Count "1 and 2 and 3." Repeat three times, then three times without the jump.

C. Teams

- (1) Leap frog over high back and over two or more other backs.
- (2) High jump.
- (3) Hand-stand.
- (4) Balance (a) on form crawl under held hoop. (b) horz. $\frac{1}{2}$ st. pos. on form.

Free activity with hoops while waiting for turn for balance.

Final. Heel raising with 2 arm raising midway upw.

Notes

1. 3-4 long ropes stretched across the exercising space held by girls. See Fig. 22, page 57. Girls jump in waves, 4-6 girls in each wave, following after each other.

2. Imagine standing in front of a big wheel with the top rim just above head height, stoop forward downward and grasp the handle, swing the arms and trunk in a large circle to the left and up till the arms are raised overhead (1); continue the movement with a big sweep round and down to the right to starting position (2). Continue several times, making large sweeping swings with no pause between. Repeat beginning the swings to the right. The knees may bend slightly but the feet must not move.

3. Spring bringing left heel across in front of and close to right foot; repeat with right foot across left; this is done with a rebound, repeated without a rebound, and once bringing left foot across with a rebound. Repeat whole, starting with right foot across.

4. See Figs. 14 and 15, page 37.

5. Partners side by side, facing opposite ways take inside hands. One does horizontal half-stand while the other supports. Later practice alone.

6. Jump with good body stretch as arms swing upward. The count "*and*" corresponds to the slight backward swing of the arms.

Teams. See Fig. 9, page 25.

EXAMPLES OF TEAM WORK WITHOUT THE USE OF GYMNASTIC FORMS

Children 8-9 Years

1. Skip jump in and out of a series of small hoops on ground, skip jump into large hoop held horizontally a little above ground by two children, crouch jump out.

2. Jumping over canes in twos.

3. Forward somersault.

4. Jumping into hoop held by partner.

Notes. See Fig. 7, page 20.

1. A series of 4-5 medium-sized hoops laid on ground with a

suitable space between each. Place hands on ground outside large hoop and crouch jump out.

3. Teacher in charge of somersault to begin with.

Girls 10-11 Years

1. Batting practice for rounders.
2. Skipping in long rope, bouncing and catching ball.
3. Standing long jump.
4. Leap frog or preparatory practices for it.

Notes

1. Can be taken in fours, bowler, batsman, fielder, and backstop.
3. Whole team stand behind line, well spaced; they jump individually each trying to beat her own record.

Girls 12-14 Years

1. Hurdle jump over a low rope, later over a series of ropes.
2. Squat vault in threes.
3. Cart-wheels.
4. Skipping in twos.

Notes

1. See page 57.
2. See page 60.
3. Practice for good style.
4. (a) One girl skips with a rope, the other runs in either in front or behind and they skip together; (b) two girls side by side, inside hands round each others' waists; turn rope with outside hands.

Girls 15-16 Years

1. Running upward jump in threes over a bowled hoop.
2. High leap-frog. Leap-frog over two or more backs.
3. (a) Throwing and catching overarm. (b) Throwing rounders ball for distance.
4. High jump.

Notes

1. Four girls. One bowls a medium sized or large hoop forward, two run and carry third girl to jump over it. For jump see Fig. 26, page 61.
2. For girls who can do this vault well. Practice in twos over high back, later over two or more backs. See Fig. 9, page 25.

TABLE WITH SPECIAL EMPHASIS ON POSTURAL TRAINING

This is an example of the type of lesson which may be given to 11-12-year-old girls who have rather slack posture and a tendency to flat foot. There should be a short talk on good carriage before the first lesson.

Home practice is absolutely necessary. Keep a list of those children who need exercises for any special postural fault and show them movements they can do at home. Encourage them to practise and improve.

Exercises 2 and 3 and the team race at the end must be done with bare feet.

A. Introduction

1. Skipping. Individual, turning rope *backwards* and keeping a good posture.

B. Principal Exercises

2. X sit., shake each foot in turn. See mobility exercise I, page 79.

3. Exercise 7, page 80.

4. Forward lying, trunk raising and lowering. Pull the shoulders down and do not raise the arms. See Fig. 4, page 9.

5. Standing with back against wall. Trunk dropping forward downward. See Fig. 10, page 34.

6. Free running and walking. Correct the posture.

7. Balance walk along forms with bean bag on head. See No. 20, page 44.

8. Shrug shoulders loosely up and down.

9. Skip jump with arm swinging forward upward, sideways downward (circling).

10. Kneeling, trunk bending from side to side.

11. Four foot kneeling, touch knee to forehead. See Exercise 4, page 82.

C. Teams

Teams 1 and 2. Bean bag race. See Game 1, page 80.

Teams 3 and 4. Crouch jump with bean bag between feet, throw bean bag over head. See Lesson 3, page 23.

Final. Crook lying; try to make middle of back touch floor. Relax.

Note

Take about ten minutes over the team work, changing teams round so that all have practice.

HAND APPARATUS

3 doz. small hoops, 12 in. diameter.

2 doz. medium hoops, 24 in. diameter.

1 doz. large hoops, 30 in. diameter.

4 long ropes, 25-30 ft.

Skipping ropes of different lengths, one for each child in the class.

Small balls, one for each child.

Bean bags, one for each child.

4 Netballs.

2 doz. 3-ft canes for jumping.

$\frac{1}{2}$ doz. long canes, 6 ft. These can be put across skittles or tins for jumping or obstacle races.

Skittles, or tins painted in bright colours and filled with sand.

PORTABLE APPARATUS

4 Gymnastic forms.

4 Gymnastic mats.

Jumping stands and rope.

SECTION IV

LISTS OF EXERCISES

THESE exercises are arranged in approximate progression, and have been divided into two main age groups—

1. Juniors 7-11 years.
2. Seniors 11-16 years.

Balance, vaulting, and agility exercises have been arranged in progressive difficulty as far as possible.

INTRODUCTORY ACTIVITIES

To begin the lesson an activity may be selected from the running, jumping or agility groups, or hand apparatus may be used. Whatever it is, it should be known to the class or so simple that it can be carried out at once to a short explanatory command.

Juniors

1. Free practice with hand apparatus, hoops, skipping ropes, etc.
2. Run about freely, jumping ditches.
3. Each child running with a ball, catching or bouncing.
4. Practice jumping over cane held by partner.
5. Run, jumping long ropes.
6. Running, at signal jump high and go on running.
7. Four "Catchers" see how many they can each touch before the whistle goes.
8. Making runs. Race from one line to the opposite line and back, touching the ground behind lines with the hand each time. Count the number of runs (there and back equals one) scored before the whistle goes.

Seniors

1. Running, change to sprinting.
2. Dodge and mark in twos (page 73).
3. Skipping through long ropes.
4. Running circle catch (page 70).
5. Netball passing in twos.
6. Dodge-ball in groups.
7. One in the middle (page 71).
8. Jump series of long ropes of varying heights.
9. Springing over mat lengthways (page 57).
10. Upward jump in threes over obstacle.
11. Hurdle jump over ropes or forms.
12. Practice agilities, leap frog, hand-stand, etc.

RHYTHMIC JUMPS

These give training in rhythm and cultivate spring and lightness. The children should maintain good posture and stretch the ankles and straighten out the body when jumping upward, landing on the toes with a slight give in the ankle and knee joints.

When counting for a rhythmic jump the count is made each time the feet touch the ground after the upward spring. The higher the jump the slower the rhythm will be.

Example of Counting

Command. "Skip jump to eight counts—go! 1, 2, 3," etc. On the command "Go!" a jump upward is made, the first count *one* comes as the feet touch the ground again. When a jump has been practised to numbers it can be done "judging the time." *Command.* "Skip jump—go! Stop!"

Jumps can be (a) without a rebound; (b) with a rebound.

A rebound is made as follows. As the toes meet the ground after the upward spring there is a very slight bending or "giving" of the ankle and knee joints, followed by an immediate extension as the toes are almost off the ground again. The counting is the same as the counting for a hop step, e.g. "1 and 2 and," the count "and" coincides with the hop or rebound.

Command. (1) "Skip jump four with and four without a rebound—begin! 1 and 2 and 3 and 4 and. 1, 2, 3, 4."

(2) "Four hop steps on the spot with knee raising forward—Begin! 1 and, 2 and, 3 and, 4 and."

EXAMPLES

Skip Jumps. In skip jumps the feet should be together and the ankles stretched as the upward jump is made. Many variations are possible. Examples are—

Jumping on the spot.

Moving forward or sideways.

Turning.

Parting the legs as the jump upward is made.

Spring Step. Springing quickly from one foot to the other having the leg forward with ankle stretched (running on the spot with straight knees).

Spring Step with a Hop—the same, hopping on each foot. Variations are—

Raising the leg, foot just clear of ground.

With high leg raising.

Moving forward.

Astride Jump. Jumping the feet apart and together again continuously, with or without a rebound, high or low.

Hop Step. With leg raising forward, backward, or sideways, with the raised knee bent or straight.

Swing Step. The same rhythm as spring step, but the leg is raised sideways instead of forward. The legs swing sideways alternately.

Cross Jump. Jump upward as for skip jump, but alight with the feet crossed alternately, i.e. first jump left heel in front of right foot, next jump right heel in front of left foot.

Tapping Step. Hopping on one leg, the other raised forward, outward, sideways, or backward with the ankle stretched and the toes tapping lightly on the ground.

Slip Step Sideways. Galloping sideways on the toes, moving one foot sideways and the other quickly up to it again.

Galloping Step Forward. The same as above, the back foot closing quickly up to the forward one.

Skip Step Forward. Step and hop forward on alternate feet—a very slight hop. May also be done with a high spring.

Various combinations can be made from these steps.

DETAILS OF RHYTHMIC JUMPS

1. Skip jump, (a) with (b) without a rebound.
2. Two low skip jumps with a rebound, one high without a rebound. Count "1 and 2 and 3."
3. Skip jump, jumping to crouch pos. on 4th or 8th count.
4. Skip jump with a higher jump on 4th or 8th count.

Stride Jumps

1. Stride jump.
2. Stride skip jump (rebound when feet are apart and together).
3. Stride jump with arm rais. sidew. or arm swinging sidew. upw., with a hand clap over head.

Combined Skip and Stride Jumps

1. Skip jump without a rebound (1-4), stride jump (1-4).
2. Jump astride (1), two skip jumps with feet together (2-3).
3. Two skip jumps, one astride jump (1-4).
4. Four astride jumps, four skip jumps, with arm swinging sidew. upw. to clap hands above head on 4th skip jump.
5. Astride jump, arm swinging sidew. upw. to clap over head (1) skip jump (2-3).

Hopping. Hopping on the spot, or moving forward or backward.

Example. Four hops forw. with kn. rais. forw., four hops backw. with leg rais. forw. with kn. straight.

Some Combinations

1. Four skip jumps without rebound (1-4), followed by four running steps on the spot.
2. Hopping with kn. rais. forw., at every third hop hop high and clap hands above head.

3. Four hop steps with kn. rais. forw., four skip jumps.
4. Two skip jumps, one stride jump (1-4), three slip steps sidew. and a skip jump (1-4).
5. Four slip steps to left, four skipping steps forw.; four slip steps to right, four skipping steps backw.
6. Hopping and toe tapping forw., backw., sidew., and hop with feet together (1-4) left and right.

HEAD EXERCISES

These are not now usually given as isolated movements. The muscles of the neck should get sufficient work in the general exercises. It is, however, sometimes necessary to give definite head exercises; for these see section on posture, page 81.

EXTENSION AND SUPPLEMENTARY EXERCISES

These exercises should always be given in a table. The first one is chosen for its effects upon the upper part of the back and chest and is followed by a supplementary exercise as already explained on page 5. This first movement corresponds with the "arch flexions" which used to be taught. True arch flexions require great muscular control, are never used for children, and have now fallen into disuse for senior girls and adults. Sufficient corrective effects can be obtained from the use of the types of exercises listed on pages 35, 36.

The term "Extension Exercise" is descriptive of the corrective and postural effect which is aimed at—stretching upwards of the back of the neck and head, with a raising of the chest and straightening of the upper part of the back. The backward bending of the upper part of the spine and consequent "arching" of the chest is the reason why these movements are sometimes called "arch flexions."

Juniors must never be given arduous movements of this type. A list of suitable exercises for children aged 8 to 10 is given on page 35. These, of course, may be used also for older age groups. The important point is that children of these ages must not be allowed to attempt work that is too arduous for them.

A good first exercise for these children is to try to sit up straight and without stiffness in Cross Sitting Position. The position must not be held for more than a few seconds. A progression on this would be Arm Swinging Sideways Upwards to touch finger tips overhead, looking up through the ring made by the arms. It is much harder to maintain a good posture in Crook Sitting Position so this exercise must be taken as a later progression from Cross Sitting.

Free arm circlings and swingings are good movements to use in this group because of their mobilizing effect upon the chest walls.

EXAMPLES

Relaxed Crook Sitting Chest Lifting (sitting a little distance from the wall). Sitting relaxed, with the back slightly rounded,

the chest is lifted and the head pressed against the wall to help the movement.

The chest raising and lowering must be done evenly to a slow command: "Chest—raise—lower." Make sure that the girls are not holding their breath during the movement.

Movements in Forward Lying Position. Trunk raising and lowering must be done evenly and rhythmically. The head should be in line with the body with a "long neck" (Fig. 4, page 9).

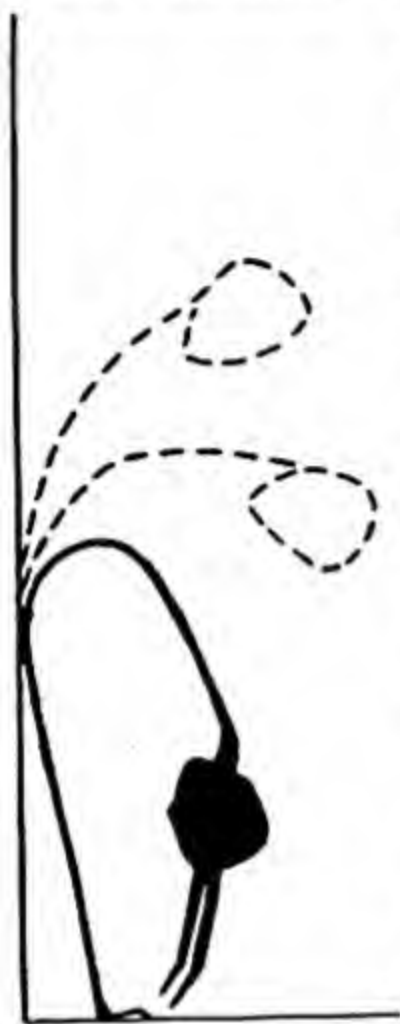


FIG. 10

Yard Forward Lying Hammering. The fists are lightly clenched, the arms sideways, the little finger side of the hand downwards. As the trunk is raised, the hands beat lightly against the floor and are raised to shoulder level, count (1), return to first position, count (and), repeat to six counts, hold position with trunk raised and arms sideways on the sixth count, then command "Trunk—lower!" The movement should be a smooth easy swinging up and down of the upper part of the back.

Bench Exercise. Forward lying across bench with supports. Those taking the movement take lying position with the thighs supported on the bench; the knees must be free. The hands rest on the floor. The supports take half knee position behind them and grasp their ankles.

On the command "Raise," the arms are lifted and brought to the sides and a horizontal position across the bench is taken. The heels must be on the same level as the bench and supported firmly. The body should form a straight line without any hollowing of the back. To progress raise arms outward upward.

Trunk Dropping Forward Downward. The trunk is dropped forward and downward with the arms hanging loosely and the head tucked in. The trunk raising should be a gradual "uncurling" and straightening of the whole back, first the end of the spine, then the middle, next the shoulders, and lastly the head (Fig. 10). To teach this make the girls stand with their backs against a wall and their feet a little distance from it; trunk forward and downward bend position is then taken. In the trunk raising, each part of the back in turn should touch the wall till the whole back and the back of the head are in contact with it. An effort must be made to press the middle of the back against the wall. Many will find this difficult. The teacher can help by putting her hand flat in the space between the wall and the middle of the back and telling the girl to try to touch her hand by pressing her back against it.

When the movement has been thoroughly practised in this way it can be done from standing or stride standing positions. This is a

most valuable postural exercise and should be carefully taught to, and constantly practised by, children of all ages.

DETAILS OF EXTENSION AND SUPPLEMENTARY EXERCISES

Ages 8 to 10

1. (a) X sit., grsp. toes with hands and sit erect.
- (b) X sit., bending forw. to put head on ground, "uncurl."

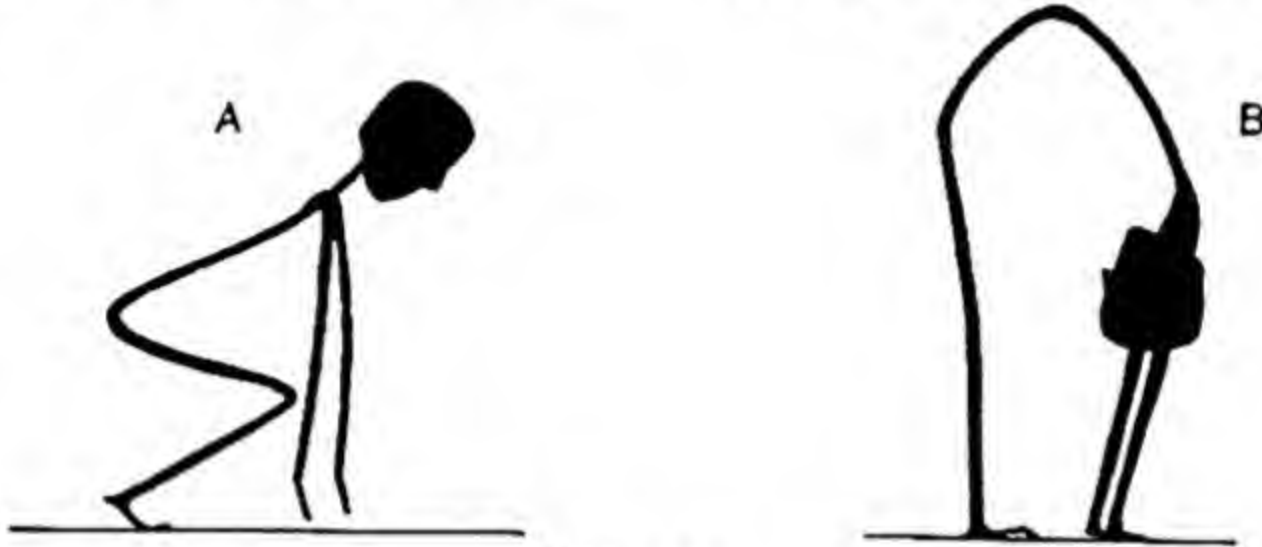


FIG. 11

2. (a) X sit., arm swing. sidew. upw., to touch finger tips over head.
- (b) X sit., grsp. toes, roll backward to touch floor behind with feet.
3. (a) Forw. lying, slight trunk rais., and lowering, hands by sides. "Seals catching fish."

(b) Crouch st., kn. bending and str., hands on floor (Figs. 11, (a) and (b)).

4. (a) Std. st., hold bean bag in both hands swing. arms up above head, looking upw., and drop bean bag just behind.

(b) Swing arms forw. down and reach between legs to pick up bean bag. Knees may be bent (Fig. 12).

5. (a) Std. st., with bean bag on head; bend slightly backward with a smooth movement to drop bean bag behind.

(b) Same as (b), Exercise 4.

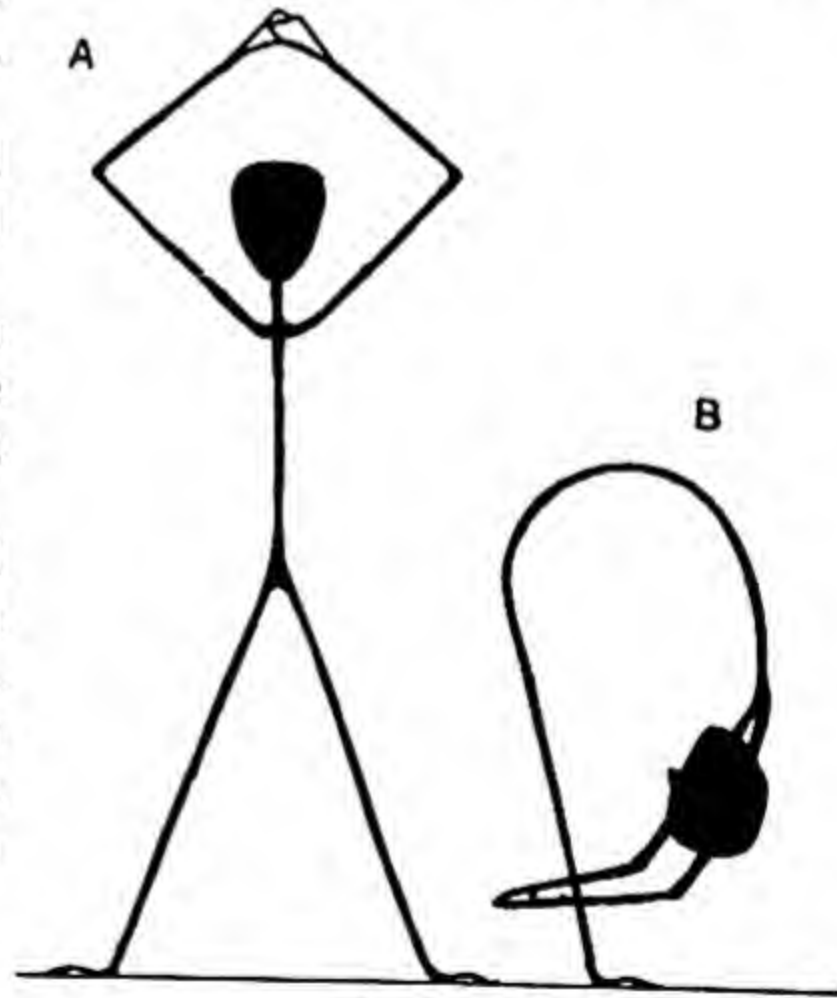


FIG. 12

Ages 10 to 12

All above exercises and—

6. (a) Crk. sit., hands on knees, sit erect.
- (b) Long. sit., trunk bending forw. to put head on knees.
7. (a) Crk. sit., finger supp. sidew.; clap hands over head and tap ground to sides with finger tips twice (1-3).

(b) Lying, kns. bending upw. "Hug knees to chest."

8. (a) Forw. lying, trunk rais., holding pos.

(b) Std. st., trunk bending forw. downw., touch floor with hands alternately together and apart, e.g. touching floor between legs (1), and with hands as far out to sides as possible (2).

9. Partners *A* and *B* X sit., back to back with short space between. *A* holds cane with hands a little more than shoulder width apart. Both bend backw. swinging arms forw. upw., *A* passing cane to *B* (1), both swing arms forw. downw., and bring head to knees (2). Repeat with *B* passing cane back to *A*.



FIG. 13

10. **A Good Trunk Exercise for Juniors.** X sit., trunk falling forw. and backw. in couples facing, grasping hands across. *A* falls backw. with a straight back while *B* leans forw. keeping back straight. Keep the arms straight and head up (Fig. 13).

Ages 13 to 14

All the above exercises and—

11. (a) X sit. (backs against wall), chest lifting.

(b) Lean st. against wall, trunk dropping forw., "uncurl."

12. (a) Yd. forw. lying trunk rais. and lowering.

(b) Std. st. grasp ankles.

Ages 15 to 16

All above exercises and—

13. (a) Yd. forw. lying trunk rais. and lowering, fists clenched, beat-the-ground sidew. (1-6). Hold pos. on 6th count.

(b) Std. st., relaxed trunk bending forw. down. and "uncurl."

14. (a) $\frac{1}{2}$ knl., arms raised midway upw. Toss small ball or bean bag above head from hand to hand.

(b) Relaxed trunk bending downw. over forw. knee. Repeat exercise kneeling on other leg.

15. (a) Same as Exercise 9 but partners in $\frac{1}{2}$ knl. pos.

(b) Relaxed trunk bending downw. over forw. knee.

16. (a) Forw. lying across bench with supports. Trunk rais. with arm raising midway upward.

(b) St., relaxed trunk bending forw. downw., "uncurl."

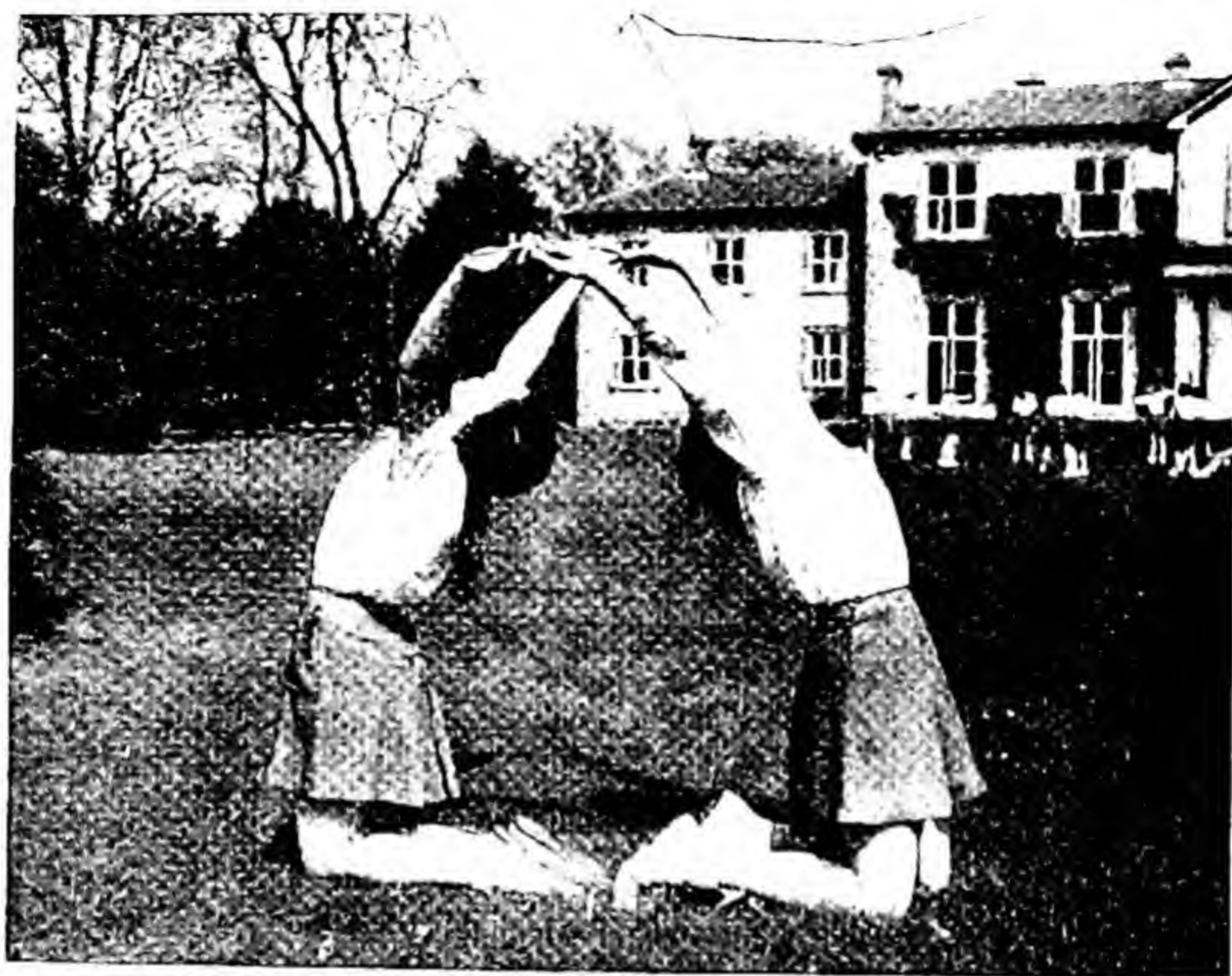


FIG. 14

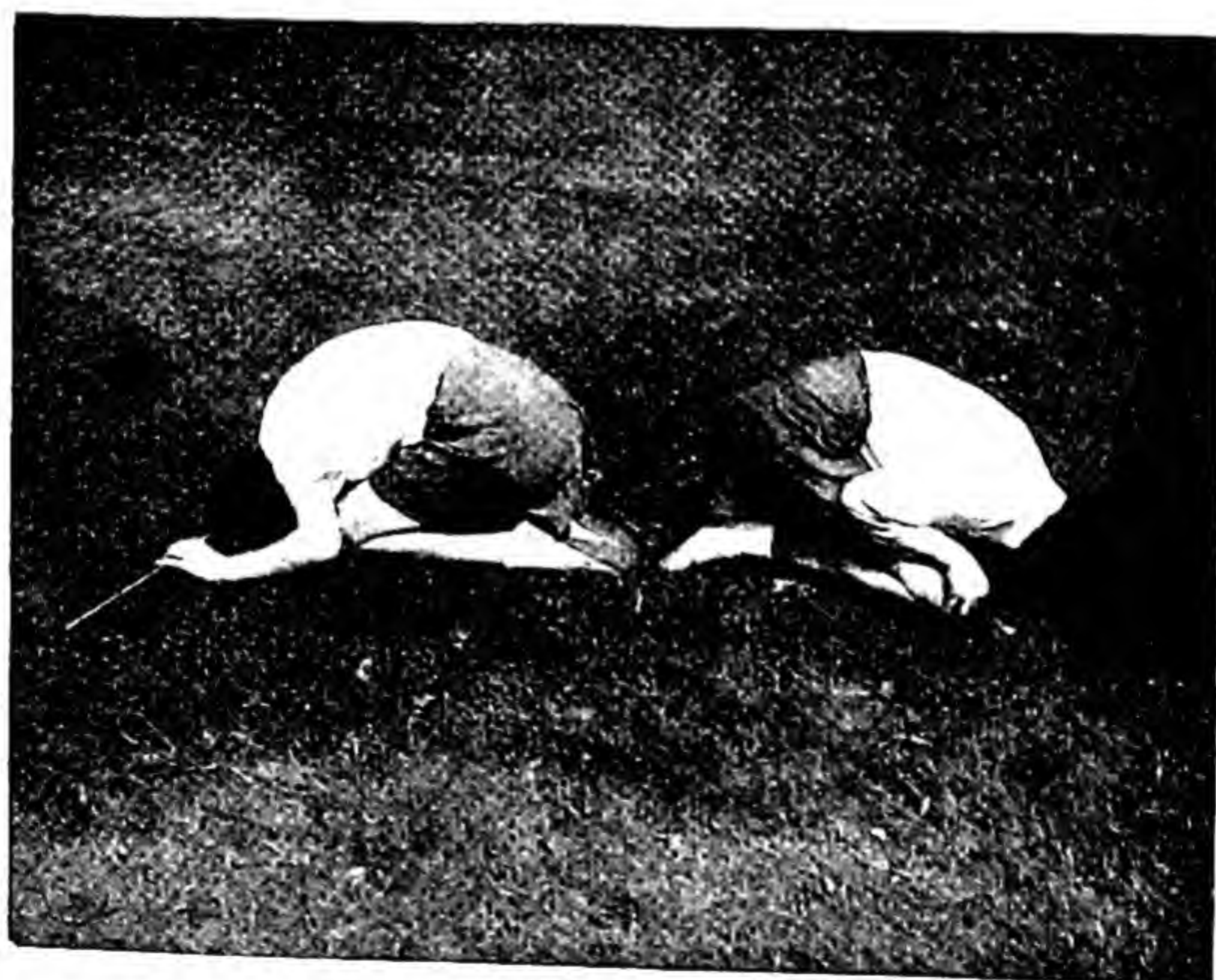


FIG. 15

ARM EXERCISES

In schools which have no apparatus upon which the children may hang and climb, more arm movements must be included in the lesson. These need not always be of a formal type. The action for an overarm throw (done left and right) is an example. Hand-stand is a strong exercise for the arms as well as being an abdominal movement, so is a cart-wheel, which is also a lateral trunk exercise.

1. Arm stretching in various directions.
2. Arm swinging and flinging.
3. Arm circling.

Young children find difficulty in moving the arms and holding the rest of the body still. For this reason arm movements to begin with are given in sitting positions. Single arm stretching, swinging or circling can be done in twos with shoulder grasp, or with the other arm raised sideways with the hand pressed against a wall to give support.

EXAMPLES

1. **Arm Stretching.** Juniors cannot as a rule take an arms upward stretch position without hollowing the back and pushing the waist forward. The midway stretch position is therefore used instead (see page 10). Arm stretchings are taken from bend position (see page 10).

2. **Arm Swinging.** These are shoulder loosening movements.

Example. Arm swinging sideways upward to touch finger tips overhead.

3. **Arm Circling.** These have the same loosening effects upon the shoulder joint.

Example. Single arm circling. The arm is circled forward upward and backward downward with the hand loosely clenched. A free vigorous movement. The arm should be carried round evenly without jerking.

Whilst insisting upon control and precision, try to make arm exercises stimulating. Hand claps and finger tappings and bouncings combined with arm movements liven up the exercises and make them more interesting. An exercise like "arm stretching upward, forward, sideways, and downward" may become boring and be done half-heartedly. If by repetition and correction a better performance is insisted upon, time is wasted which might have been used for more satisfactory and enjoyable exercise.

For finger bouncing the fingers are slightly flexed and the finger tips "bounce" against the sides of the legs or the ground with a slight rebound.

DETAILS OF ARM EXERCISES

Juniors

1. X sit., arm swinging sidew. upw. to clap hands above head.
2. X sit., arm rais. to yd. pos.

3. Yd. X sit., arm swinging downw., bouncing finger tips against ground with an instant swing upw. again to yd. pos.
4. Yd. st., arm swinging down to clap against legs and up again to yd. pos.
5. X sit., arm rais. to midway str. pos.
6. Bend, X sit. pos.
7. X sit., arm str. sidew.
8. St., arm bending, str. sidew. and lowering with a clap against legs. Also slowly (1-3).
9. Std. st., single arm circling.
10. St., arm swinging sidew. upw. to clap above head, sidew. downw. to clap sides (1-2).
11. X sit., arm swinging sidew. upw. to touch finger tips over head, and down again to touch ground lightly with finger tips. Count "1 and 2," etc.
12. St., arm bending and str. midway upw.
13. Std. st., swinging one arm forw. upw., arm changing with a swing.
14. Yd. st., arm swinging down. forw. downw. sidew. (the arms brush lightly against the sides with each swing).
15. Yd. st., arm swinging sidew. upw. to clap over head and returning to yd. pos.

Seniors

16. Kn. sit. or st., arm swinging forw. backw. Forw. upw. to str. pos. in four counts. The arms get a little higher with each forw. swing. Count "1 and 2 and 3 and 4 and." Continue the movement several times.
17. Kn. sit., arms acr. bend, elbow pressing backw. with a strong pull on every 3rd count (1 and 2 and 3).
18. Kn. sit., arms acr. bend, elbow pressing backw., with arm flinging sidew. on every 3rd count (1 and 2 and 3).
19. Kn. sit., arm swinging sidew. upw. to head rest pos.
20. Exercise 16 holding the arms upw. str. pos. on the 4th count. Arm swinging sidew. downw. to command.
21. Bending st., arm str. upw. (1-2).
22. St., arm str. upw. and downw.
23. Arm bending and str. sidew. (1-4), arm swinging downw. forw. downw. sidew. (1-4).
24. Arm str. upw. quickly through bend pos. (1), arms bend (2), str. upw. (3), swing sidew. downw. (4).
25. Yd. st., swing arms forw. and clap (1), swing back and three pulls in yd. pos. (2-4).
26. Partners crk. sit. back to back with hands grasped. Arm swinging sidew. upw, sidew. downw.
27. St., str. arms upw. through bend pos. quickly (1), arms bend (2), str. upw. (3), lower arms sidew. downw. (4, 5, 6).

28. Str. arms upw. through bend pos. quickly (1), bend and str. upw. (2-3), swing sidew., downw. with three finger bounces against side of thighs (1-3).

DETAILS OF BENCH ARM EXERCISES

1. **Forward Lying Pulling Along Bench.** (Bench lengthways.)

Lying forward at the end of the bench, grasping the edges with arms straight. The body is pulled forward along the bench till the shoulders are level with the hands. The hands then push strongly till the arms are straight by the sides, still grasping the bench. The arms are moved forward again and the movement repeated. The exercise is finished by jumping the feet up to crouch position at the end of the bench, standing and jumping off.

2. **Back Lying Pulling Along Bench.** As before, but lying on the back with arms stretched upward to grasp. The exercise can be finished by taking stride sitting position across bench and standing up to one side.

BALANCE EXERCISES

Balance Exercises on the Ground

1. Heel raising and lowering.
2. Walking on toes.
3. Heel raising and knee bending.
4. Knee raising.
5. Leg raising, leg swinging, leg circling.
6. Toe lunge backward.
7. Controlled Jumps.

Balance Exercises on Forms

Forms Broad Side Up

1. Step on and off forms.
2. Running along forms.
3. Simple leg exercises in standing position on forms.
4. Jumping on and off forms.
5. Balance exercises moving along forms.

Forms Narrow Side Up

1. Step on and off form.
2. Stand, balance on form and jump down.
3. Balance exercises moving along form.

Balance movements for children are more interesting than they used to be. Contrast "Foot placing sideways with heel raising and knee bending" with "Gallop step sideways and at a signal jump to full knee bend." Children like doing these exercises; because they are interesting they will put their best efforts into them. While needing control, the movements also increase agility and suppleness. Quieter types of balance exercises should be given as well, but they need never be dull.

BALANCE EXERCISES ON THE GROUND

1. Running or skipping, stand on toes at signal.
2. Run or skip, crch. pos. at signal.
3. Skip jump, crch. pos. at signal.
4. Heel rais. and lowering, first to command, later to numbers.
5. Run or skip, stand on toes with arms sidew. at signal.
6. Chain grasp. two lines facing or couples opp. each other. Walk forw. on toes, at signal stand on toes and make "arches" with arms rais. sidew. upw.
7. As above, at signal one line runs through arches and back again to places. Opp. line repeats.
8. Crouch pos., change to sit. up with hands on kns., elbows straight, and back again to crch. pos.
9. Partners facing ring grasp. Drop to kns. full bend pos. alternately.
10. The same, both down and up together.
11. Partners facing ring grasp. Kns. full bend, "knee springing" (e.g. "bouncing" up and down with little knee stretchings and bendings).
12. Crouch, hands on kns., little jumps on spot.
13. Ring grasp facing partner. Four skip jumps, jump to kns. full bend on 4. Later add hopping round in place in kns. full bend, and stopping steady.
14. Heels rais., full kn. bending (1-4).
15. In team rings chain grasp. Slipping or skipping step sidew., jump up and land in full kn. bend on signal or after a certain number of steps.
16. Skip jump; jump to kns. full bend, hands on kns. at signal or after a specified number of jumps.
17. Kns. full bend., hands on kns. or by sides; kn. springing to four or six counts.
18. Kns. full bend, hands on kns. or by sides, clap hands over head and back to kns. or sides.
19. Kns. full bend, hop round on spot and finish "steady" with hands on kns.
20. Jump with three or five steps start, land in crch. pos.
21. The same. Land in kns. full bend.
22. Yd. toe st., heel lowering with arm swinging sidew. down. and a light clap on the sides of the legs, instant return to yd. toe st., count (1 and 2).

Leg Raising, Swinging and Circling

23. Stand on one leg, touch ground on either side of foot with finger tips, other leg raised straight behind.
24. Run or skip and take above pos. at signal.
25. St., one arm rais. forw. or sidew. Kick the hand.

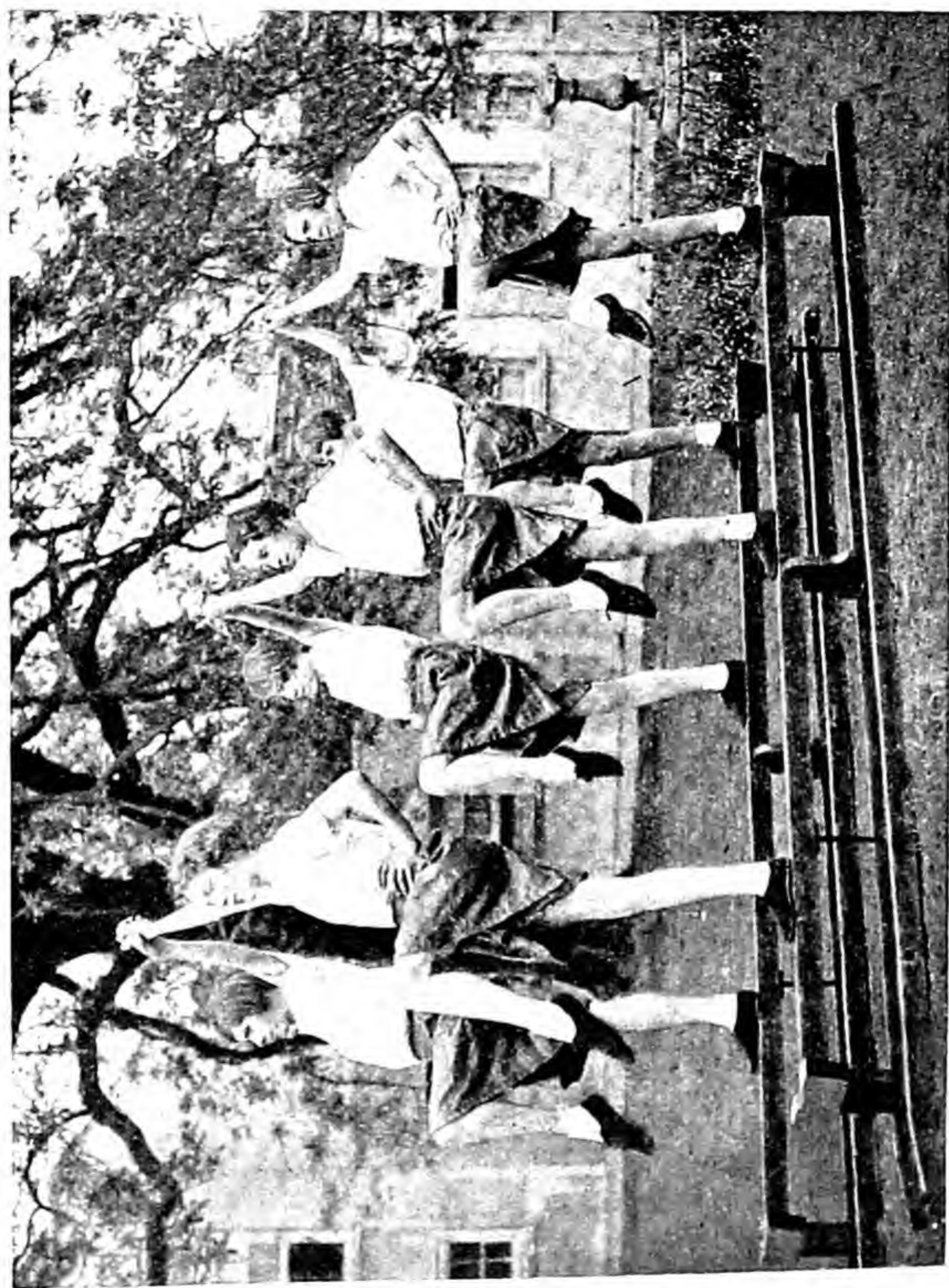


FIG. 16

26. Leg swinging sidew. (1), hold raised pos. (2), swing leg sidew. downw. (3).

27. Leg circling, leg swing forw. sidw. backw., and downw. with kn. straight. Introduce with one hand supp. against wall, or partners with shoulder grasp.

28. Leg and arm rais. sidew. quickly (1), hold pos. (2), lower slowly (3-4).

Knee Raising

29. Run or skip. At signal, stand on one leg "hug the knee."

30. Run at signal stand on one leg, arms in yd. pos.

31. Hopping and holding other foot behind with opp. hand stand steady on one leg at signal holding foot.

32. St., alt. kn. rais. with arm rais. sidew. and lowering.

33. St., alt. kn. rais., with arm rais. forw., and lowering.

34. Yd. st., kn. rais., clap hands under kn. of raised leg and back to yd. pos.

35. Yd. st., kn. rais., three hops clap hands under kn. of raised leg on third hop, three hops, clap hands above head on third hop.

36. Touching the forehead with the toe. Grasp one foot with both hands, kn. turned out. Rais. toe to forehead with a very slight trunk bending forw.

37. Holding a bean bag, one kn. raised. Place bean bag on floor close to standing foot without altering the pos. of the raised kn. Return to pos. Count (1-2). Pick bean bag up again (3-4).

BALANCE EXERCISES ON FORMS

Deep jump means jumping to land in crouch position or full knee bend.

Balance exercise along the form should finish with a deep jump off the other end, landing at first in crouch, later in full knee bend position.

Forms Broad Side Up

1. Step on form, stand, step down opp. side. Turn and repeat.

2. Stand on form, deep jump off, partner supp., ring grasp.

3. Stand on form, deep jump off without supp.

4. Walk along form, deep jump off.

5. Run along form, partner running on floor by the side chain grasp. Deep jump off. Later without supp.

Exercises Standing on Form Broad Side Up

6. Yd. toe st. pos.

7. Full kn. bend.

8. Full kn. bend, kn. springing.

9. Full kn. bend, arm swinging upw. to clap hands over head.

10. Balance walk forw., with alt. kn. rais.

11. St., kn. rais., arms rais. forw., swing arms downw. and sidew., downw. and forw.

12. Full kn. bend, hop along form.

Forms Narrow Side Up

13. St. sidew. to form, mount form on one leg. The free leg hangs straight with ankle stretched.

14. Balance walk along form, partner walking on floor at side and giving supp. in chain grasp.

15. Balance walk along form without supp. Deep jump off.



FIG. 17

16. Walk along form with bean bag on head. Take bean bag in one hand, and jump off at end.

17. Balance walk forw., with alt. kn. rais. in twos (Fig. 16).

18. "Dipping." Walking forw., bending the knee of the supp. leg. The kn. is slightly bent and at the same time the other leg, as it moves forw., "dips" down at the side of the form, kn. and ankle stretched, and is brought forw. to make the next step as the supp. leg is straightened. In twos, later alone.

19. Balance walk forw., bending downw. to pick up bean bags. The bags are placed on the floor by the middle of the forms. Balance walk forw., and when the bean bag is reached rais. heels with one foot slightly forw., bending kns. outw., and pick up the bag. Stretch up and continue balance walk. Deep jump off end.

20. Above exercise, placing bean bag on head. Deep jump off

end with bag on head. The bag should fall just behind the jumper as the jump is made.

21. Balance walk backw. Finish with deep jump off sidew. In twos, later alone.

22. Balance walk backw., with alt. kn. bend. upw. Finish with deep jump off sideways. In twos, later alone.

23. Balance walk, throwing and catching bean bag or ball in both hands. Low throw. Throw and catch with each forw. step.

24. Balance walk, bouncing and catching ball on alt. sides of form with each step.

25. Curtsey on forms. Step forw. a short step (1), bend and str. kns. (2). As the kns. are str. the back foot is moved forw. to begin the next forw. step. Take first in twos.

26. Forms crosswise. Girls stand on forms opp. each other and throw a bean bag backw. and forw. trying to keep balanced in toe st. pos.

27. Balance walk, with leg rais. sidew. or backw.

28. Balance st., toe lunge backw.

29. Toe lunge backw. and kneel on backw. leg. Partner supp. Later alone.

30. Horz. $\frac{1}{2}$ st. pos. with supp.

31. Horz. $\frac{1}{2}$ st. pos.

Note. Horizontal half standing position can be taken in line with chain support. Then without support (see Fig. 17).

Balancing form. Take first with a partner supporting.

LATERAL TRUNK EXERCISES

1. **Head and Trunk Turning.** The turn should be made as complete as possible. In standing position the knees are kept straight and the feet quite still, trunk erect. In trunk turning and also in trunk bending sideways the arms hang freely at the sides and move with the trunk unless some other position is stated.

2. **Trunk Bending Sideways.** The shoulders are square to the front and the whole spine is arched from the neck to the end of the back. The movement should begin in the upper part of the spine.

In standing position the knees are straight and the feet kept quite still.

3. **Combined Trunk Turning and Bending.**

4. **Side Falling.**

STARTING POSITIONS

Head and Trunk Turning. Ride sitting, cross-leg sitting, long sitting, kneeling, four foot kneeling, standing, close standing, astride standing.

Head and Trunk Bending Sideways. Ride sitting, kneel sitting, kneeling, standing, astride standing, close standing, foot support

sideways half standing (foot on a form or on the knee of another pupil who is in half kneeling position), side falling position.

DETAILS OF LATERAL TRUNK EXERCISES

All the movements are done moderately quickly unless otherwise stated.

Head and Trunk Turning: Juniors

1. Trunk turning from side to side in sit. knl. or st. pos. Arm swinging loosely from side to side to help the movement. In X sit. pos. the fingers tap the ground as far round to the side as possible.

2. "Catch a Fly," X sit. hands on kns. Turn, clap high to left (right) turn to front, hands on kns. again (1-2). Also in st. pos., clapping the sides of the legs as the turn to front is made.

3. Four foot kneel., single arm swinging obliquely upw. with trunk turning. The fist is clenched, the other arm straight with hand on ground. Repeat several times to the same side. A slight swing of the arm across the body is made with each return swing. Count (1 and 2), etc.

4. Crk. sit. with one hand on opp. kn. Trunk turning, rais. arm obliquely upw. to point behind. Repeat several times to the same side.

5. St. trunk turning with arm swinging sidew. to yd. pos.

6. "Sawing" in twos. Std. st., face each other holding hands, right elbow bent, left arm straight, trunk turned to right. Take quick trunk turn, with alt. arm bending and str.

7. Yd. std. st., palms facing forw., trunk turning to clap the hand. Keep left arm still, turn trunk to left, swing right arm across to clap left hand, and return again immediately. Repeat, swinging left arm across.

Head and Trunk Turning: Seniors

8. Std. st., single arm flinging obliquely upw. with trunk turning. A continuous rhythmical swing. The arm swings across the body in the return movement. Count (1 and 2 and), etc. Take several times to the same side. The swing upw. should be very vigorous. For the return the arm swings down by its own weight.

9. Bend std. st., trunk turning with arm str. sidew. upw. (1-4).

10. Acr. bend, std. st. arm flinging sidew. with trunk turning.

11. Acr. bend, std. st., single arm flinging sidew. with trunk turning.

Trunk Bending Sideways: Juniors

1. Knl. pos., trunk bending sidew., try to touch the ground with the hand.

2. Std. st., trunk bending sidew., reach as far as possible down leg with hand.

3. The same, with four light hand beats down the leg to the side to which the bending is made.

4. Wide std. st., trunk bending sidew. to touch ground. Bend the left (right) kn., keep both feet firm, bending sidew., keeping shoulders to front and reach out to the left (right) as far as possible.

5. Yd. wide std. st., trunk bending from side to side with a hand clap on the side of the leg. A quick side bend and clap on the leg and an immediate trunk rais. with arms in yd. pos. Repeat to right.

6. St. or std. st., trunk bending sidew. to the left (right) four times rhythmically (see page 13).

Trunk Bending Sideways: Seniors

7. St. or std. st., trunk bending from side to side with a rhythmic swing.

8. Yd. wide std. st., fists clenched, trunk bending from side to side.

9. Std. knl., trunk bending sidew. with alt. arm rais. sidew. upw., curved over head to help the flexion.

10. Exercise 9 in st. pos.

11. Foot supp. sidew. half st., trunk bend inwards and fall outwards. Hands reach well down leg at each sidew. movement.

12. Half knl. pos. one leg str. sidew., trunk bending with rhythmic swings towards the straight leg, and trunk bending to opp. side. Reach hand down leg in each case.

Also in yd. and head rest pos. and with alt. arm rais. to head rest., rais. the opp. arm to the sidew. bend.

Combined Trunk Turning and Bending: Juniors

1. X sit., bend forw. to place left (right) ear on left (right) kn.

2. Std. st., trunk bending downw. to grasp one ankle with both hands.

3. Wide std. st., trunk bending downw. to clap ground on either side of foot. Trunk str., upw., clapping the sides of the legs. Left and right. Count (1, 2, 3, 4).

4. Std. st., trunk bending downw., touch left (right) foot with opp. hand. The free arm swings backw.

5. Std. st., grasp one ankle with both hands. Keeping the downw. bend pos., swing across and grasp opp. ankle, return to first pos., raise trunk. Count (1, 2, 3, 4).

6. Lunge outw., reaching forw. to touch ground in front of foot. Keep feet still and bend forw. kn. as deeply as possible.

7. Std. st., grasp. ankle, pull head to kn. with rhythmic pressing.

Combined Trunk Turning and Bending: Seniors

8. Half knl., one leg str. sidew., trunk bending to grasp ankle of straight leg with both hands.

9. Yd. st., trunk turning and bending sidew.
10. St. arms upw. str., trunk turning and bending sidew.

Side Falling: Seniors

1. Side falling pos.
2. Side falling 1 arm rais. sidew.
3. Side falling 1 leg rais. sidew.
4. Side falling 1 arm and leg rais. sidew.

For description of side falling position see page 9.

Side falling position can be taken by—

(a) Bending the knees and placing the left (right) hand down close to the side of the left (right) foot and moving the feet out quickly sidew.

(b) From prone falling position by turning on one hand.

(c) As in (a) but by jumping the feet out to the side.

(d) From long sitting by turning, and with the body supported on the hand and the outside of the thigh, push up to side falling position.

Bench Exercises: Juniors

1. Ride sit., trunk bending sidew.
2. Ride sit., on bench in twos facing each other, "sawing." For description of "sawing" see page 46, No. 6.
3. Yd. ride sit., trunk bending sidew.

Bench Exercises: Seniors

4. Ride sit., trunk bending sidew. with alt. arm raising.
5. Prone falling, hands on bench, turning to side fall.
6. As above, with arm or arm and leg rais. sidew.
7. Foot rest half st. pos., trunk bending sidew. The leg is raised sidew. with the sole of the foot placed on the bench; shoulders to front and both kns. straight; girls spaced alternately on either side of bench. In this position trunk bending sidew. is done as in the free standing exercises.

ABDOMINAL EXERCISES

1. **Movements of Running and Jumping.** The abdominal muscles are brought into action by any movements in which the knees or legs are raised, as in running on the spot with knees high, or kicking the hand forward or sideways.

2. **Movements Taken from Crouch Position.** Crouch jump on the spot or jumping the feet sideways or backward.

3. **Trunk Bending Forward and Downward.** These exercises are placed with the posture movements because, as already explained, they are complementary exercises to them. The last part of the

forward and downward bend causes the abdominal muscles to work strongly.

4. **Movements in Sitting or Lying Positions.** These produce the strongest abdominal effects.

5. **Prone Falling.** For description of this position see page 9.

6. **Trunk Falling Backward and Raising.** In these exercises the back must be kept straight and head erect. The movement must not be continued far enough to cause trembling.

Care should be taken in all abdominal exercises that the breathing is free.

Abdominal movements in which the knees are bent are easier than those in which they are straight.

The difficulty is increased if an abdominal exercise is done slowly, the movements should therefore be taken at a moderate speed.

In single knee bending or leg raising in lying position the other leg should be kept straight and the knee braced back.



FIG. 18

DETAILS OF ABDOMINAL EXERCISES

Juniors

1. Running on the spot with high kns. or with kns. straight.
2. Kicking the hand sidew. or forw.
3. Crch. pos., jumping feet upw.
4. Crch. pos., jump sidew.
5. Crch. jump moving forw.
6. Crch. pos., alt. leg str. side. (Fig. 18).
7. Crch. pos. kns. bend and str. (Figs. 11, (a) and (b), page 35).

Movements in Sitting or Lying Positions : Juniors

1. Backw. lying, "Thunder." Legs straight, feet drummed up and down, at first quietly, then louder, then quietly again.
2. Backw. lying, "Cycling," "Pedal" by alt. kn. bending and str. Straighten each leg in turn "to push the pedal well down."
3. Long sit., drumming with heels.
4. Long sit. change to crk. sit.
5. X sit., grasp toes, "rock" backw. and forw. to touch ground behind head with toes.
6. Crk. lying "hug" kns. to chest.
7. Crk. lying, alt. leg kicking upw.
8. Backw. lying, swing both legs upw., kns. straight, grasp. toes.
9. Lying alt. kn. rais. and head rais., to touch kn. with forehead.

10. Lying quick change to X sit.
11. Lying quick change to st. through X sit. pos.
12. Roll over somersault forw.
13. Crk. backw. lying, alt. kn. rais. to shoulder.
14. Crk. backw. lying, two kns. rais. to shoulder.
15. Backw. lying, alt. leg rais., straight leg.



FIG. 19

16. Crk. backw. lying, two kns. str. upw. over head and lowering to crk.

17. Backw. lying, bend kns. to shoulders (1), str. legs upw. (2), swing up to long sit. pos. (3).

18. Backw. lying, quick leg rais., slow leg lowering.

19. Crk. sit., tap with toes and heels alt., at signal stop with arms raised sidew. and feet raised off ground.

Movements in Sitting or Lying Positions: Seniors

20. Backw. lying "mark time" with alt. leg rais., feet rais. just clear of ground.

21. Backw. lying, kn. rais., leg str. upw. and lowering without feet touching ground. The feet come to within two inches of the ground and the kns. are then bent again.

22. Backw. lying, kn. rais., leg str. downw., without feet touching ground, and kn. bending upw. again.

23. Crk. sit., hands on kns., leg str. to long sit. with arm rais. sidew.

Prone Falling: Juniors

24. From crouch pos. jump feet backw. to prone falling pos. with bent hips (Fig. 19).

25. "Caterpillar." From crouch pos. walk hands forw. to prone falling, then walk feet up to hands.

Prone Falling: Seniors

26. Crch. pos., prone falling by jumping feet backw.

27. Prone falling, feet placing astd. with a jump.

28. Prone falling, astd. jumping.

29. Astd. prone falling, one arm swinging forw. upw.

30. Prone falling, one leg rais. backw. with opp. arm swinging forw. upw.

Trunk Falling Backward and Raising: Seniors

31. Bending kn. sit., slight trunk falling backw.

32. Crk. sit., hands on kns., slight trunk falling backw.

33. Crk. sit., finger supp. sidew., slight trunk falling backw.

34. Crk. sit. in couples, soles of feet supp. against each other's. One falls backw., the other leans forw. alternately. Backs straight. This can also be taken without holding hands with arms in bend pos.

SOME COMBINED EXERCISES FOR SENIORS

1. Long. sit., alt. heel beating in march time (1-8), tap toes twice in crk. sit. (9-10), tap heels twice in long. sit. (11-12). Repeat tapping in crk. and long. sit. (13-16).

2. Long. sit., trunk falling to lying down slowly (1-4) (back straight, the head touches the ground first), backw. lying alt. kn. bending and str. to shoulders (5-8), rais. trunk slowly (1-4) (shoulders leave the ground first, head last).

3. Backw. lying bend kns. upw. to shoulders (1), str. legs upw. (2), with kns. straight, slowly lower to ground, parting feet and clapping them together four times while doing so (1-4).

BENCH EXERCISES

Juniors

1. Crk. sit. on bench (lengthw.), marking time, stop with feet raised and arms sidew.

2. Ride sit., "rowing" hands on shoulders of girl in front, trunk falling backw. and forw. with straight backs.

3. Sit. grasp front edge of bench, trunk falling backw. slowly (bench crossw.), kns. slightly bent.

4. Change between crch. pos., hands on bench and prone falling pos., hands on bench.

5. High crch. pos. (hands on floor, feet on bench), run hands forw. to prone falling pos. with feet on bench.

Seniors

6. Lying heels supp. on bench with kns. straight, raise legs, click heels (1), legs up straight (2), X sit. (3), lying pos., legs raised (4), lower legs slowly to bench (5-8).

Note. In these exercises the girls should be placed alternately on either side of the benches.

7. Ride sit. on bench "rowing" (1), trunk leaning forw. with straight back, arms raised forw., fists clenched (2), trunk fall backw. with arms acr. bend, fists clenched.

8. Sit., change to horz. lying pos. acr. bench. The edge of the bench is grasped and the legs raised and trunk lowered so that the body lies across the bench in a horizontal position. Later, without grasping, adjust balance.

MARCHING AND RUNNING

Marching ought to train the girls to walk well and naturally. The correct walk is the "heel and toe" walk, the foot should be

placed lightly forward on the heel, the leg moving freely from the hip with the knee straight but not stiff. The weight is then transferred to the ball of the foot. As the weight of the body is taken by the forward foot, the rear foot presses off and is brought forward for the next step. In walking, the feet should always be directed straight forward; when they are turned outwards strain is put upon the inner side of the foot, the muscles which by their action turn the foot inwards are not sufficiently used, and a weakening of the arch results. The arms should swing from the shoulders naturally, left arm forward when right foot is in front, right arm when the left foot steps forward.

Marching with ankles stretched and toes down first may be used occasionally as an ankle exercise. Marking time with ankle stretching may be given for the same reason. This is a definite exercise for the ankle joint and not a normal method of walking.

Marching may be given at any time in the lesson, but should not be over-used. It is best given in short spells with attention to correct posture and timing. Children may sometimes march to singing, e.g. a tune like "John Peel," or to music; the music can be stopped and the class carry on, keeping the same rhythm.

Children should not be deprived of exercise by learning intricate "tactical" marching.

In the gymnastic lesson take running for short spells, paying attention to lightness, posture and rhythm. After running do not halt the class suddenly but change to marching for a few minutes till the heart-beat and respiration have quietened down.

MARCHING AND RUNNING EXERCISES

1. Free walking anywhere, change to light running.
2. Run with a hurdle jump on every 5th step.
3. Walking on toes, walking on heels (short spells).
4. Free skipping. At signal join both hands with partner and spin round on toes.
5. Sprint, change to running in rhythm.
6. Walking in time to music, form rings of 4, then 8 and continue. Walk alone again.
7. Running in large circle, trying to pass girl in front on outside; change to running in rhythm.
8. Free walking, join inside hand with partner and change to running.
9. Walking, change to gallop, hop step, skipping etc.
10. Free walking, stop and stand in good posture.
11. Running clearing obstacles. Run over skittles, benches, etc., and under ropes.
12. Running in a maze.
13. Running making a figure of eight.

APPARATUS FOR JUMPING AND VAULTING

Simple apparatus for jumping and vaulting can be provided at very little cost and trouble.

For high jump it is necessary to have graduated jumping stands and a weighted rope or a jumping lath. The stands are not expensive to buy, or they can be made by a carpenter.

For skipping and low jumps there should be four long ropes

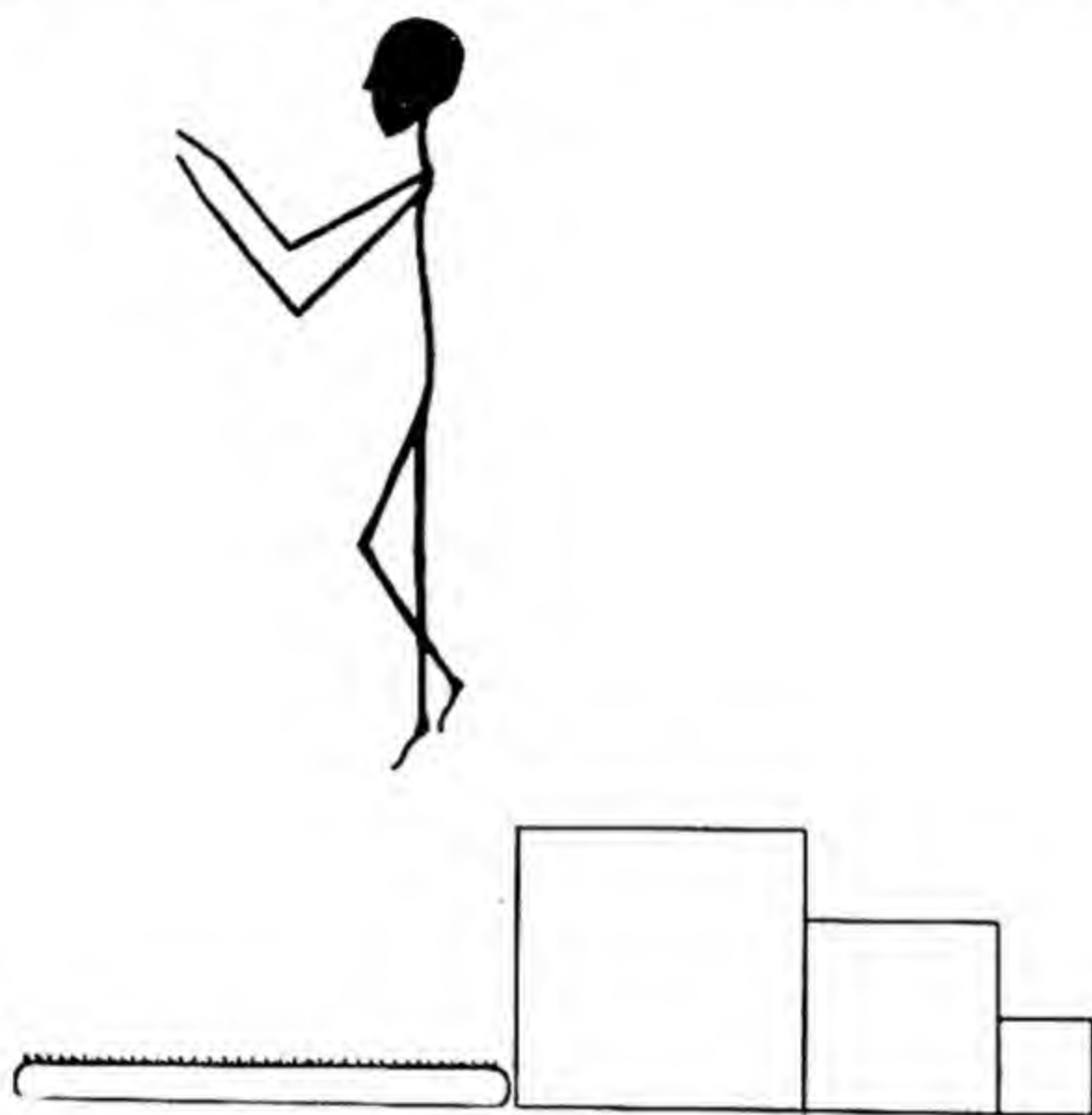


FIG. 20

25-30 ft. long which can be held at both ends to allow of several children running and jumping together.

For the 8-year-olds an apparatus for jumping off may be made as follows. Three strong wooden boxes of suitable heights are arranged in a series of steps so that the children can run up and jump off the top one. The boxes should be painted a bright colour. A landing mat is needed for this jump (Fig. 20).

Making a Mattress for Landing

If gymnastic mats are not available, a serviceable mattress for jumping and agility exercises may be made as follows.

A 4 ft. square bag of strong sacking or canvas is made and sewn with packing thread. This is stuffed with clean straw and the opening sewn up. A canvas loop to form a handle is sewn to each corner so that it can be moved easily and hung up out of the dust when not in use.

If it is kept only for use in the physical training lessons this mattress will last a long time.

Juniors, and older girls too, enjoy running and jumping up to touch a ball or band suspended on a stick and held up by another person standing on a chair. The following easily-made apparatus makes this activity more enjoyable.

Materials Needed

2 bamboo rods 4 ft. high. (For older girls 5-6 ft.)

5 yd. of elastic.

1 large coloured "Play Ball," consisting of a cover and bladder.

1 strong safety-pin.

Double the elastic and make a loop at each end. Into the top of each rod drive a small wire nail and bend it to prevent the elastic coming off. Bind the top of each rod with string to prevent splitting. Fix one loop of each end of the elastic to the hook formed by the bent wire nail. Place the safety-pin in the centre of the elastic so that the elastic passes through the pin when it is fastened. Fasten the pin to the cover of the bladder.

One girl holds each rod vertically so that the elastic is stretched and the ball hangs from the centre. The heights at which the rods are held can be varied.

The children run in turn, jump up to try to touch the ball, and run on again at once. If they can jump up high enough to grasp the ball with both hands, they land lightly with knees bent (the elastic will give sufficiently for this), release the ball and run on.

Gymnastic Forms

These can be obtained from any of the well-known gymnastic outfitters. At least four forms are necessary for class work.

DETAILS OF JUMPING AND VAULTING

1. Rhythmic jumps (see page 31).
2. Preparatory jumps.
3. Jumps using apparatus. Marked spaces, ropes, boxes, forms, etc.
4. Vaults.

Preparatory Jumps

All jumps consist of three parts: (1) the take-off; (2) the jump; (3) the landing.

The aim of the easy preparatory jumping exercises is to cultivate a vigorous controlled action in the take-off and spring into the air, followed by a light, flexible, well-balanced landing.

How to Teach Landing

It is most important to teach this correctly from the beginning.

A hard, jerky landing, besides being jarring and tiring, is dangerous and may cause serious internal injury or broken limbs.

A common fault which children make is that of bending the knees before landing, and landing with them already bent and stiff. The knees should be straightened while the body is in the air; the toes then touch the ground first and a flexion of the ankle, knee and hip joints follows immediately. Girls who have formed a habit of bending the knees before landing should practise the correct way by standing and jumping upwards off a low bench or box, at first with another supporting by holding both hands, and later alone.

Stages in Teaching

1. Skip jump, landing at a signal or after a named number of jumps, in crouch position with finger tips touching the floor.

2. Upward jump. Jump upwards as high as possible, stretching the legs when in the air; land in crouch position. Later, land in crouch and stand again immediately.

Juniors should be given many easy jumping exercises, e.g. running and jumping upwards to touch a coloured ball or band held high, jumping over lines or marked spaces, or over skittles or other low objects. These kinds of jumps given as preparatory exercises to the younger girls can be used through the course as warming-up, introductory exercises or breaks, and as jumps in obstacle races.

Jumping Exercises

1. Skip jumps. Rhythmic jumps (see page 31).

2. Run, jump as high as possible and continue running.

3. Skip jump, landing in crch. pos. on signal or after a certain number of jumps.

4. Upw. jump, landing in crch. pos.

5. Running, bounding over a series of low obstacles or over a low rope.

6. Jumping from a height (see page 53, Fig 20).

7. Jumping the ditch. Two lines are drawn to represent the ditch, the girls run and jump over the ditch, and run on.

8. Stepping stones. Small circles are drawn far enough apart for the children to spring from one to the next.

9. Running and jumping to touch a high object with head or hand, i.e. a series of ropes held up high or a covered bladder held suspended from a stick.

10. Running and bounding over a series of low ropes held all at the same height.

11. Jumping the "snake." One girl puts her foot on one end of the rope, another holds the opposite end near to the ground and moves her wrist quickly up and down to make waves.

12. Jumping the waving rope. Two children hold the rope slack and swing it from side to side.

13. Skipping. Each child with a skipping rope.

14. Ladder jumps. Four lines evenly spaced. Jump on or between the lines, (a) landing on one foot, (b) jumping on both feet together. The lines must be sufficiently far apart to make the jump interesting.

15. Downw. jump with supp. Standing on toes on chair, box, or form with partner giving supp. ring grasp, helping the upw. jump, and stepping back to supp. for the landing.

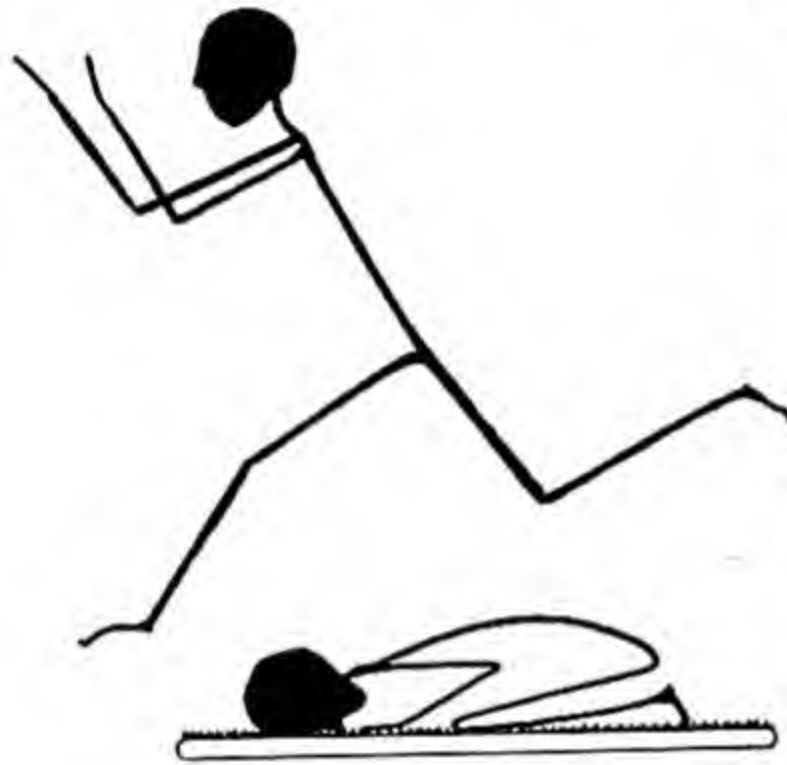


FIG. 21

16. The same without supp., landing in crch. pos.

17. The same with an instant stretch upw. to st. pos.

18. Seven jumps. Seven lines are drawn, two foot lengths between the first and second, three between the second and third, increasing each time by one foot length to the seventh line. The children stride from line to line, getting quicker, till at the last line they have got up speed to jump high in the air and

land in crch. pos. A circle can be marked for landing, at a suitable distance from the last line.

19. Running high jump forw. over low rope.

20. Running with three or five steps start and landing in crch. pos. Later in spring sit. (free practice).

21. Running and bounding over a series of low ropes held at slightly increasing heights.

22. Skipping. Long rope, a named number of skips, then run out (a) Singly, (b) two or more at a time.

23. Running under a swinging rope. The rope is turned as for skipping, towards the runner.

24. Standing high jump forw. over a rope.

25. Standing high jump over a row of low ropes.

26. Standing long jump. The jumper stands behind a line, swings the arms forw., then back again bending the knees, and, as the arms swing forw. the second time, jumps forw. and upw. lifting the knees, landing in crch. pos. and standing quickly. The length of the jump is measured by making a mark behind the heels at the landing.

27. Oblique high jump.

28. Running and bounding over another child, who crouches on the ground (Fig. 21).

29. Hop, step, and jump. Start toeing a line, hop as far as possible on one foot, follow with a long stride forw. with the other, and jump forw. from it. Mark the length of the jump behind the heels after landing, as in standing long jump.

30. Fence and ditch jump. A line is drawn beyond the jumping rope, this represents the "ditch" to be cleared.

Seniors : Preparatory Exercises for Hurdle Jump

31. (a) Run striding over a row of skittles.

(b) Run bounding over a gymnastic mat lengthways, lifting the back leg with the knee bent outwards.

(c) Hurdle jump over low rope; leading leg straight, body in-

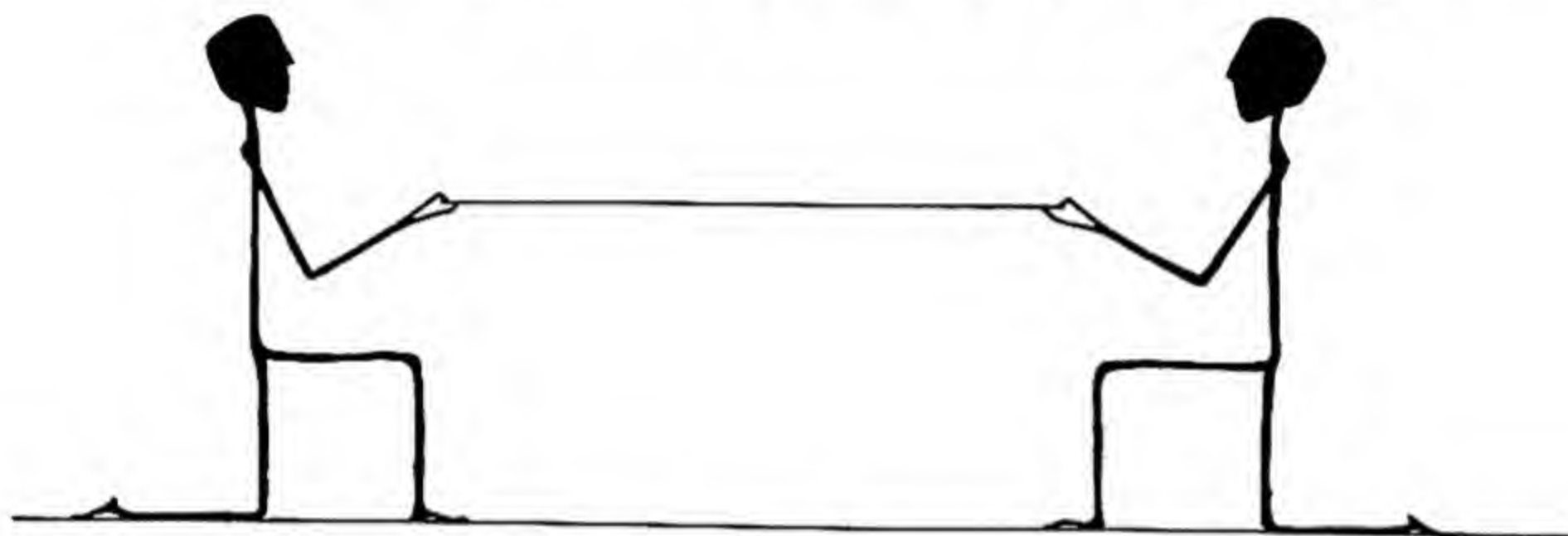


FIG. 22

clined slightly forw., arms sideways to help the balance and flight, shoulders square to front, knee of back leg bent outwards; land on leading foot and continue the run.

(d) Hurdle jump over rope 2 ft. high.

(e) Hurdle jump over a series of two or more ropes.

32. "Window" jump. Two ropes are placed one above the other and the jump is made through the space. Increase the difficulty by decreasing the space.

33. Obstacle jump. Jump to touch a high object, running bound over mat or marked space, hurdle jump over rope.

SOME TEACHING NOTES

For running high jump over a low rope or jumping over a series of low ropes, the ropes can be held by children (Fig. 22). See that those holding the ropes keep a good posture. They can take kneel sitting position, kneel on one knee, or knees full bend with one foot slightly forward. The rope should be held without sagging but so that it can be dropped instantly if any jumper catches her foot in it. Change the rope holders frequently so that all get a turn at jumping.

Running High Jump Forward Over Rope : Progressive Stages

1. Upward jump on spot, land in crouch position.
2. The same, with an instant stretch up to standing position.
3. Running high jump over a very low rope; free form. Concentrate on a quick run and a vigorous jump to clear the rope.
4. The same, paying more attention to the landing position.

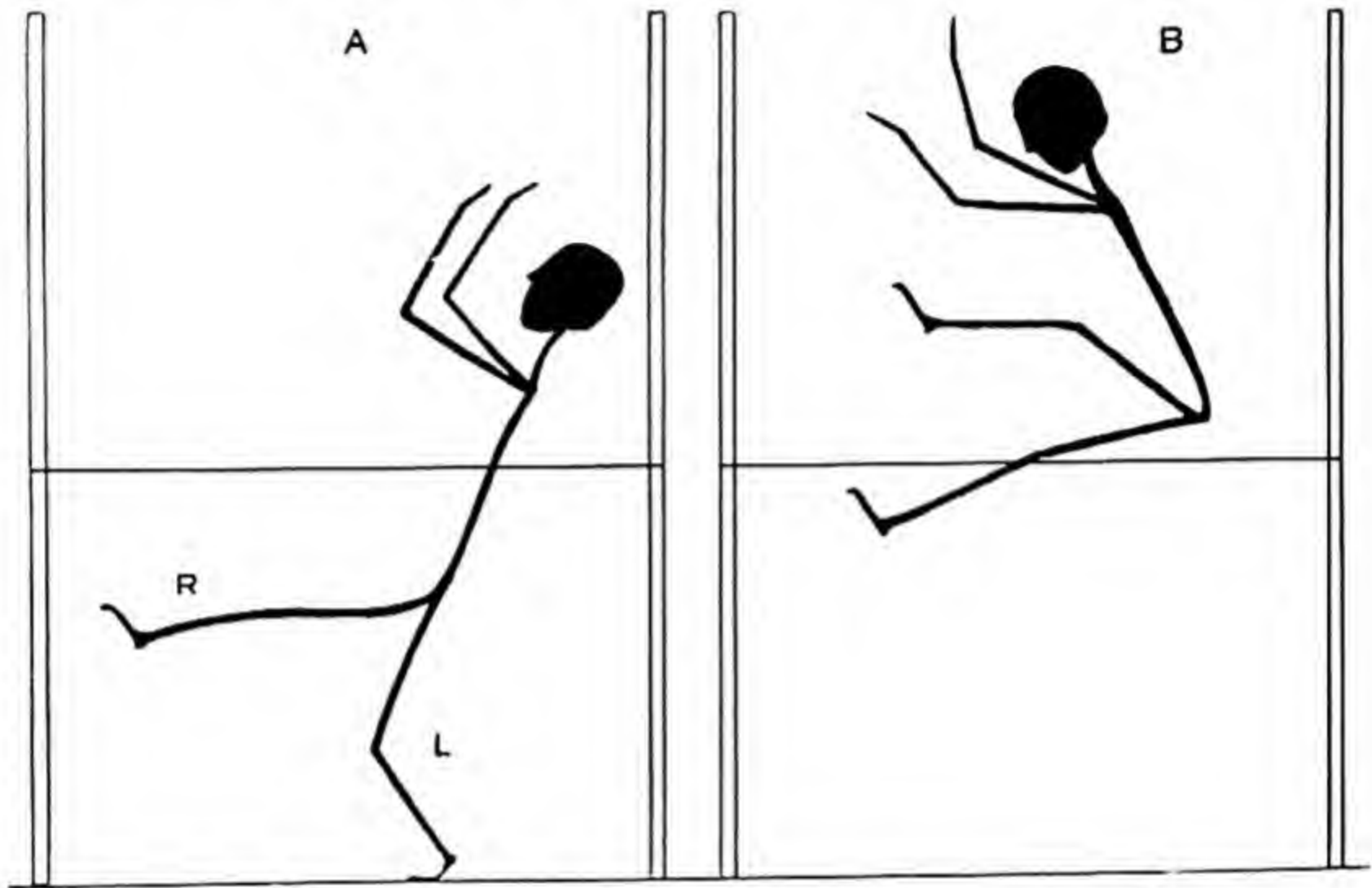


FIG. 23

5. The same, landing in a circle marked on the other side of the rope. This helps the girls to land without wasting energy by jumping forward instead of upward.

Do not use a mat during these early stages; it is not necessary for low jumps and it prevents the learning of quiet controlled landings. In jumping for height a gymnastic mat or a dug-out landing pit must be used.

Running Oblique High Jump (Scissors Jump) : Progressive Stages

1. **Practice Over a Line marked on the Ground.** Stand sideways to the line, kick high with the leg nearest to it, swinging the leg over the line, knee straight. As the kick is made, spring off the other foot, kicking it upward to follow over the line. Land on the leg which was the first to swing up.

2. **The Same with a short run.**

3. **The Same over a low rope.**

The run should be about ten paces and may be either oblique, straight, or with a quick turn sideways on reaching the rope. The

jump is practised from both sides, i.e. off the right and the left foot. It can be done over a series of low ropes.

Notes

1. The take-off is from the foot farthest from the rope, the landing is on the leg which passes over the rope first.

2. Both legs should be straight in the scissors kick.

3. The arms should swing forward upward to help raise the body as the jump is made (Fig. 23).

4. The body leans slightly forward in the upward kick. A landing mat or pit must be used for high jumping.

Jumps with Support: 10 to 11 years and Seniors

1. **Upward Jump with Support** (Fig. 24). Grasping each other's wrists, the supporter's hands are underneath her partner's, palms upward. The jumper does two or three skip jumps, then jumps upward, straightening the arms. The supporter helps the upward spring.

This jump can also be done with leg parting.

2. **Upward Jump with leg parting with a run and double take-off.** The jumper takes a short run, grasping the supporter's wrists as she takes off.

3. **Downward Jump over a rope: with support.** The jump can be taken from the top of a box (see page 53), or a strong chair may be used if another girl holds the back steady. A jumping rope is placed in front 6-8 in. higher than the apparatus used for jumping from. The supporter stands as for the two previous exercises, and the jumper springs upward, lifting her knees to clear the rope. The supporter steps backward as the landing is made, and releases her grasp as the jumper stretches up to standing position.

Progression is made by increasing the height of the rope.

4. **Upward Jump in Threes** (Fig. 25). A supporter stands on each side of the jumper, who grasps their outside hands. With their other hands they grasp her arms just above the elbows.

The jumper takes three low skip jumps followed by a quick knee bending, and three or four upward jumps in succession. The supporters lift her as she springs upward. The jumper must straighten her arms so that there is no bend at the elbows. In the jump the legs must be straight and head erect.

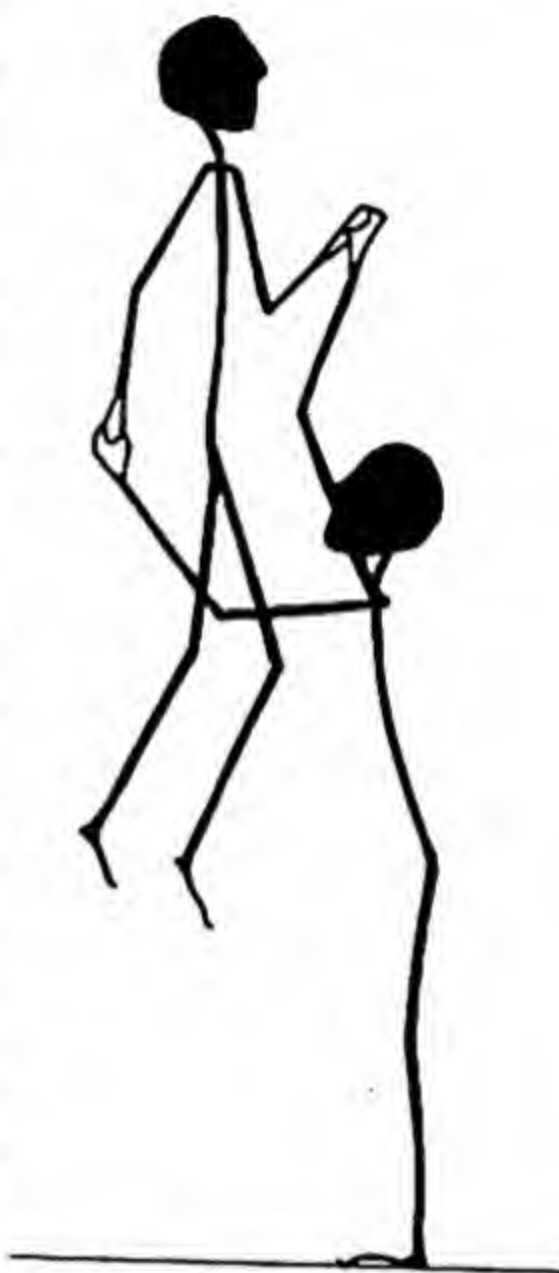


FIG. 24

5. **Running Upward Jump in Threes over a chair or other obstacle** (Fig. 26). Support is given as in the previous exercise. A short run and a single take-off, the supporters running with the jumper. The knees are lifted to clear the obstacle.

If a chair is used the back of it must be towards the jumper.



FIG. 25

6. **Squat Vault in Threes.** The supporters take stride standing position, side by side. They hold a light rod between them in the following way. The palms of the hands must be facing forward and the fingers flexed just enough to support the rod so that it will fall off if touched.

The jumper places her hands on the shoulders of the supports and takes three or four skip jumps followed by a vault through with knees bent. She should try to jump high, exerting only a quick light pressure on the supports.



FIG. 20

Later the vault may be taken with a short run and double take-off. It may also be done with supporters sitting side by side on a form, arms by their sides and hands grasping the back edge of the form.

In all these jumps the supports and the jumper should be as nearly as possible of the same height.

Leap-frog

This can be taken with 9-10-year-old children provided that they have good spring and control in ordinary jumps. It is really a vault, and the fact that the apparatus over which it is taken is a living one makes careful teaching all the more necessary to ensure safety. It is a mistake to regard leap-frog as an easy exercise which will come naturally. The fact that some of the girls may have learned it from imitating others does not justify the teacher's allowing the majority to attempt it without previous "leading up" exercises.

The following preparatory exercises to teach the run and double take-off can be included in the ordinary work.

1. **Skip Jump.**
2. **Skipping with a Rope.**
3. **Two Small Circles about one yard apart, or two hoops.**
 - (a) Run, landing on both feet in the first circle and instantly jump high to land in crouch position in the second.
 - (b) Run, landing on both feet in the first circle, instantly jump high, parting the legs, land in crouch in the second circle.
4. **Upward Jump with leg parting with support** (see page 59).
5. **Practice in Twos.** The "back" stands sideways to the jumper and makes a high back, feet astride, hands on knees, head tucked in. The jumper takes four or five running steps and springs with both feet together with a double take-off, pressing her hands down quickly on the "back" *after* her feet have left the ground. She lands on the same side, bending her knees and resting her hands lightly on the "back" to maintain balance. At this stage no attempt must be made to go over. This is the reason for making a high "back."
6. The same exercise, parting the legs in the upward jump.
7. **Leap-frog over a Back.** When teaching the final stages, teach one team at a time, taking the girls in couples. Stand on the opposite side of the back to the jumper and a little to one side with both hands ready to grasp the upper arm of the jumper if necessary to prevent a fall.
8. **Girls Working in Fours.** A "back," a jumper, and two to stand by.
Show them how to support by standing one at each side ready to grasp the upper arm but without getting in the way of the jumper.
9. **In Threes:** one supporter only.

Important Points

1. The speed of the run must not be slackened as the "back" is approached.
2. The hands must be put down swiftly with an even pressure without pushing the "back," and must not touch it till the final spring off the ground is made.
3. The "back" must stand firm and not "give."
4. See that couples are so arranged that heavy girls are not jumping over "backs" not strong enough to stand the strain.
5. Make sure that the girls can jump with ease and confidence before allowing them to practise alone.

Jumping and Vaulting Exercises using Gymnastic Forms

1. St. on forms, deep jump off (crossw.).
 2. St., free jump on to form, and deep jump off (crossw.).
 3. Running free jump over form. Also in stream (crossw.).
 4. St. astd. form (form lengthw.), astd. jumping on and off form. Also moving forw. along form.
 5. Run along form, spring upw. and land off end.
 6. St., spring on to form, skip jump along with feet together and spring upw. off end.
 7. St., oblique jump over form. Also from a running start. Same movement as oblique jump over low rope (page 58).
 8. Hurdle jump over form. For hurdle jump see page 57.
 9. Run up inclined form. High spring off end. One form crossw. balancing rib up, the other form hooked on to the middle, broad side up. Progress by rais. the crossw. form on one or two others. A landing mat must be used and the forms must be held steady at each end.
 10. St. on end of form, run along and jump over rope.
 11. Running jump over form with controlled landing.
 12. "Running up steps." Two forms lengthw. with their ends touching, another form on top of them so that a "step" is left at each end. From st. pos. step on to the bottom form with left foot, spring on to top form on right foot, jump off with left foot leading. Repeat, starting with right foot.
 13. Forms arranged crossw., one on top of the other with a third form parallel to the bottom one and touching it.
Spring on to lower form on left foot. Spring with both feet on to top form and jump off with a high spring. Repeat with right foot.
- Note.* In Exercises 12 and 13 the teacher should stand by to be ready to save a fall, as there is a possibility of the jumper catching her rear foot against the form and pitching forward.
14. Running high jump, using form as spring board. Form broad-side-up, hooked on to another which is rib uppermost. Jumping rope and landing mat.

Vaults

Height of Forms. 8 years old. One form.
 10-12. Forms two high.
 Seniors. Forms two or three high.

1. Crch. pos. on end of form. Crch. jump along form. St. and jump off end.

2. St. astd. form, grasp edges, jump feet on to crch. pos. and off again to astd.

3. As above, but moving along form.

4. Side st. crch., jump on to sloping form.

5. Crch. jump up sloping form.

6. Preparatory exercises for "Bunny Vault." Side st., grasp form.

(a) Jump on to form in crch pos, dismount to same side.

(b) As above, jumping on and off rhythmically.

(c) Jumping on as above and landing on opposite side. Repeat from side to side.

(d) Vault over form from side to side.

(e) Forms two high. Run and "Bunny Vault" over (Fig. 27).

7. Squat Vault. Forms two high (page 65).

Note. When forms are placed on top of each other they must always be prevented from shifting by having supports sitting across them at each end (see Fig. 27).

AGILITY EXERCISES

Many teachers find the agility work the hardest part of the lesson to teach; it is therefore treated as fully as possible in this section.

Nothing difficult or acrobatic should be attempted. There are many simple and interesting activities which the children will enjoy.

Roll over somersaults can be done quite easily by the small children and will be enjoyed by the older girls also. Hand-stands may be begun with 10-11-year-old girls.

The important point with agility work is not to hurry it. For example, all the leading up exercises to hand-stand should be done by the children with ease and confidence before the final stage is attempted.

1. "**Bunny Hop.**" From crouch standing position move the hands forward then jump the feet up to the hands again.

2. **Crouch Jump.** A slower movement than the former. The feet and hips are brought upward as high as possible; the shoulders must be kept directly over the hands and the head thrown back.

3. **Crouch Jump Sideways over a Low Rope.** The hands are placed on the ground on the far side of the rope and the feet jumped up as in Exercise 2 to land on that side.

4. **Crouch Jump Forward over an Obstacle.** Low rope, stool, or gymnastic bench balancing side upwards.

5. **Crouch Jump Through Hoop.** The hoop is held by one other child, at first touching the ground; later it may be raised a little. The jump is the same as in Exercise 4, but hips must be raised and

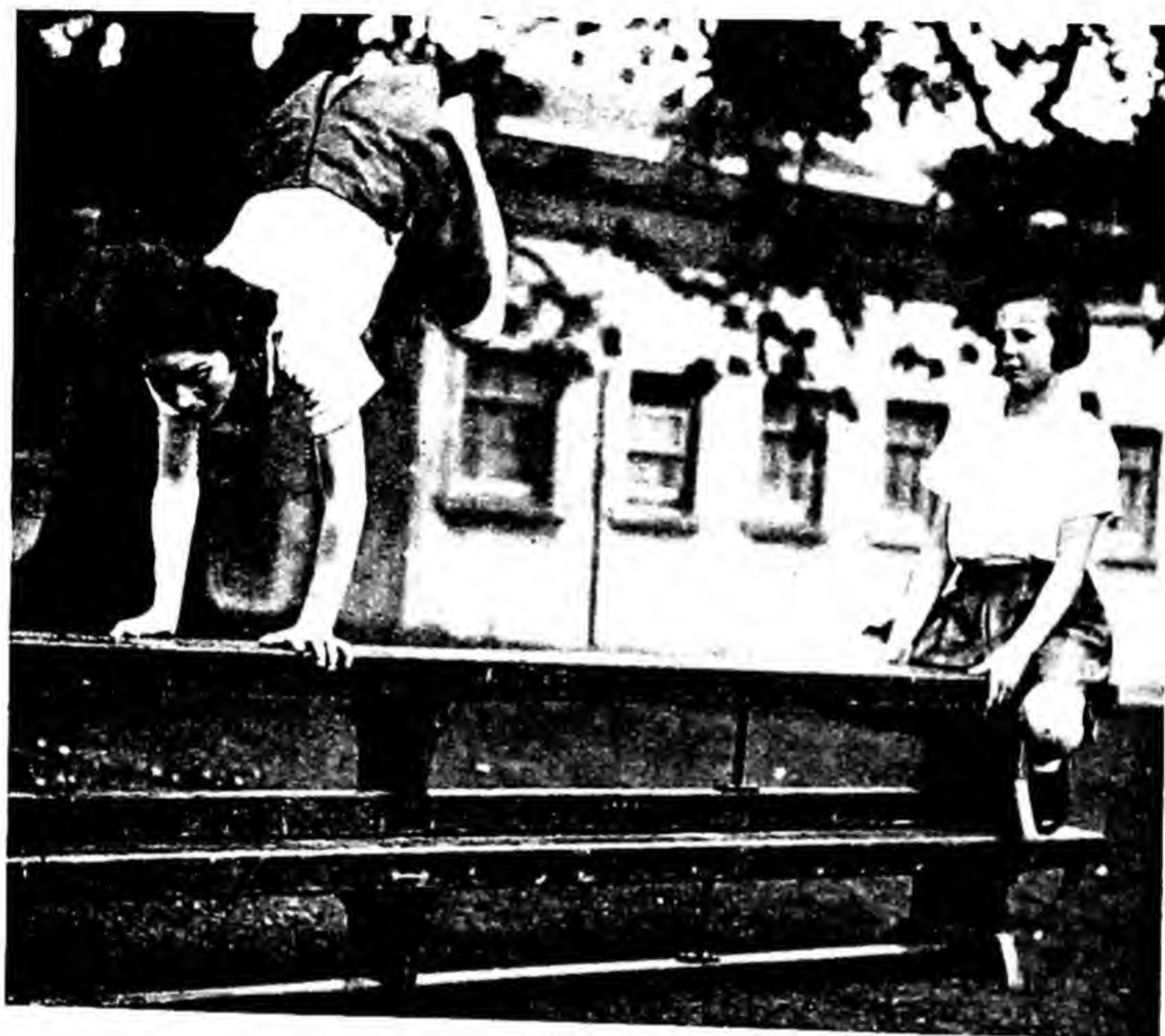


FIG. 27

feet and knees tucked well up to clear the hoop. A landing mat should be used.

6. **Crouch Jump Over Low Form or Box.** Place hands on the apparatus and crouch jump to opposite side.

7. **Crawling Through Small Hoop.** Hoop large enough to be just clear of the shoulders when passed over the head. Two children in cross-legged sitting or knee bending position with one foot forward hold the hoop between them; it should just touch the ground. Go through head first, head between arms, then move the hands forward for the legs to follow with straight hips. Mat, grass, or suitable floor surface.

8. **Forward Somersault.** There must be a gymnastic mat or a good

grass surface for this. The children must be supported and helped during their first attempts.

(a) The top of the head must not be put on the ground, the weight should be taken on the hands and the back of the neck and shoulders.

(b) In rolling over, the back must be rounded and the legs crossed as they come over, so that the child rolls over to crossed-leg sitting position with the legs tucked under the body.

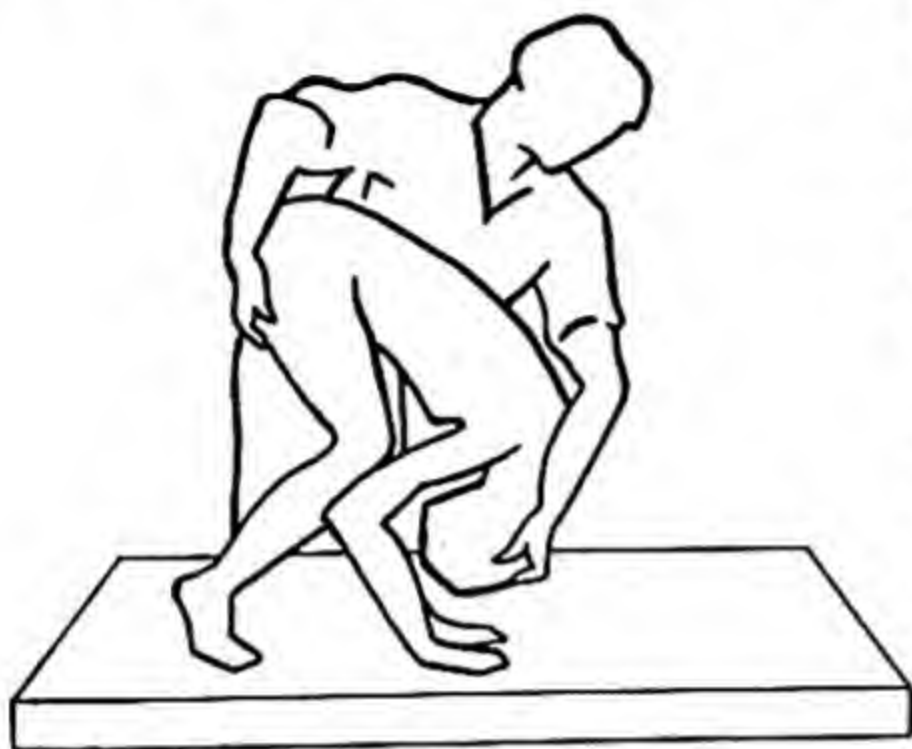


FIG. 28

(c) Tell the child that when she is starting to roll she must push with her hands and toes, and curl up to make herself as much like a ball as she can.

(d) Give support with one hand on the back of the head and neck, and gently help the child to bend her head forward. With the other hand support the legs, helping her to tuck them in (Fig. 28).

Most of the younger girls will probably be able to do a somersault without needing help, but when taking it for the first time with a class stand by to give support if it is needed. The illustration shows the best position for the teacher to take. Have the children on the mat one by one, and be ready to support the head in the roll over. Those who cannot do the somersault right away should take crouch position with the knees inside the arms and be assisted in the way described.

When the exercise can be done from standing and passing quickly through the crouch position it can be taken from a running start.

9. **Hand-stand.** A mat should be used at first. Like leap-frog, this may have been learned by some on their own, but for the majority it will need careful teaching. Besides being an abdominal movement it is a difficult balance exercise; as the weight is supported on the hands it is also a strong exercise for the arms. It should be taught in the following stages.

(a) Crouch jump on the spot kicking upward as high as possible.

Take one team at a time and show the girls how to work in fours, with three supporting and one doing the movement (Fig. 30).

The child doing the hand-stand places one foot forward with the knee bent and puts her hands on the ground, shoulder width apart and pointing forwards. The rear leg is stretched backward. The forward leg must be kicked upwards to join the rear leg as it swings quickly up. The supports kneel one on either side on the knee nearest the performer, the third (not shown in the diagram) stands ready to catch the legs as they go up. The two supports place one hand

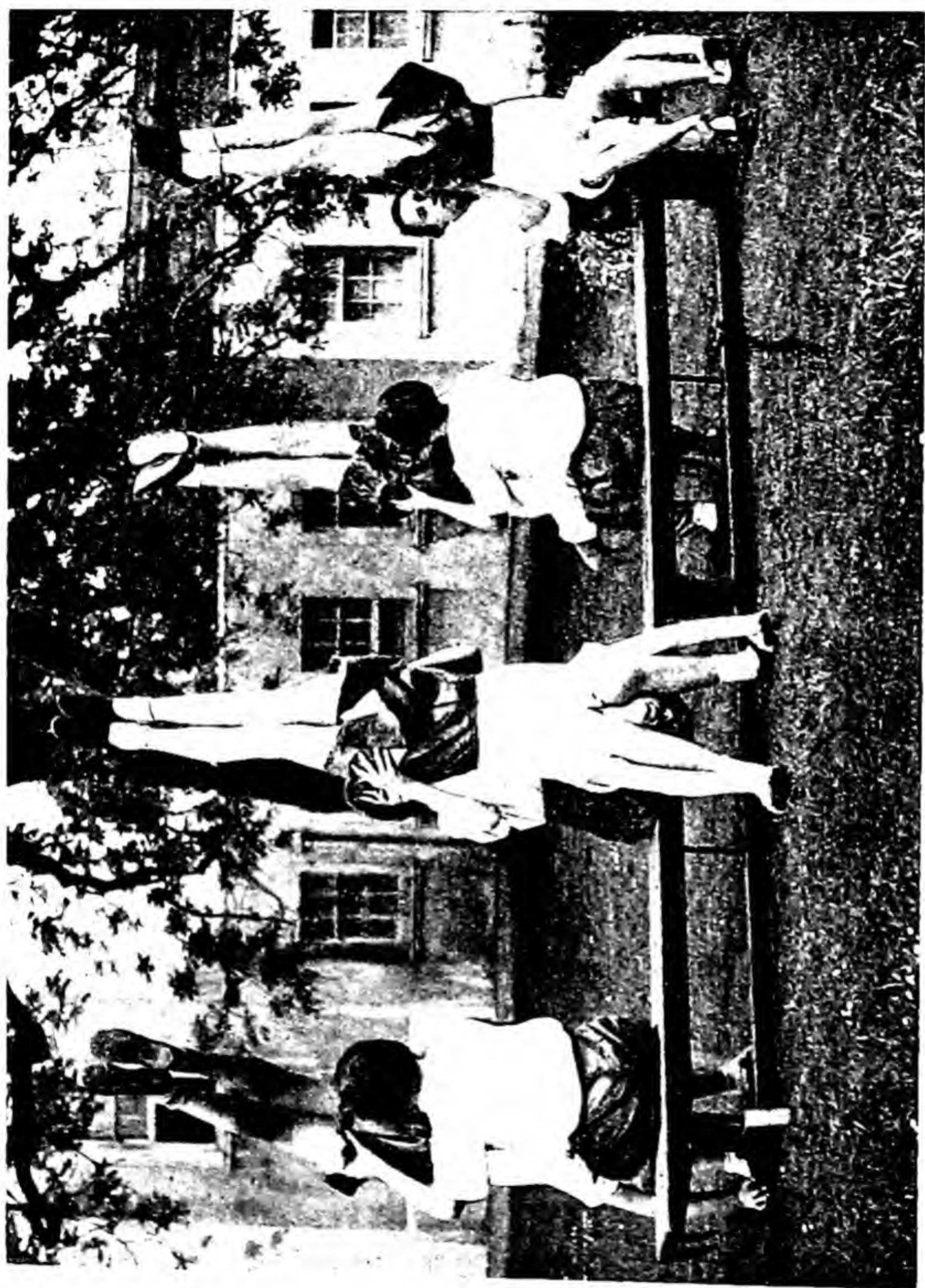


FIG. 29

under each shoulder of the performer, they also, if necessary, help to raise the legs by placing a hand on the front of each thigh.

(b) Taken from standing position with one foot forward. Swing the arms down quickly, and the legs up; supports as before.

(c) The same, with two supports and the performer throwing her feet up against a wall.

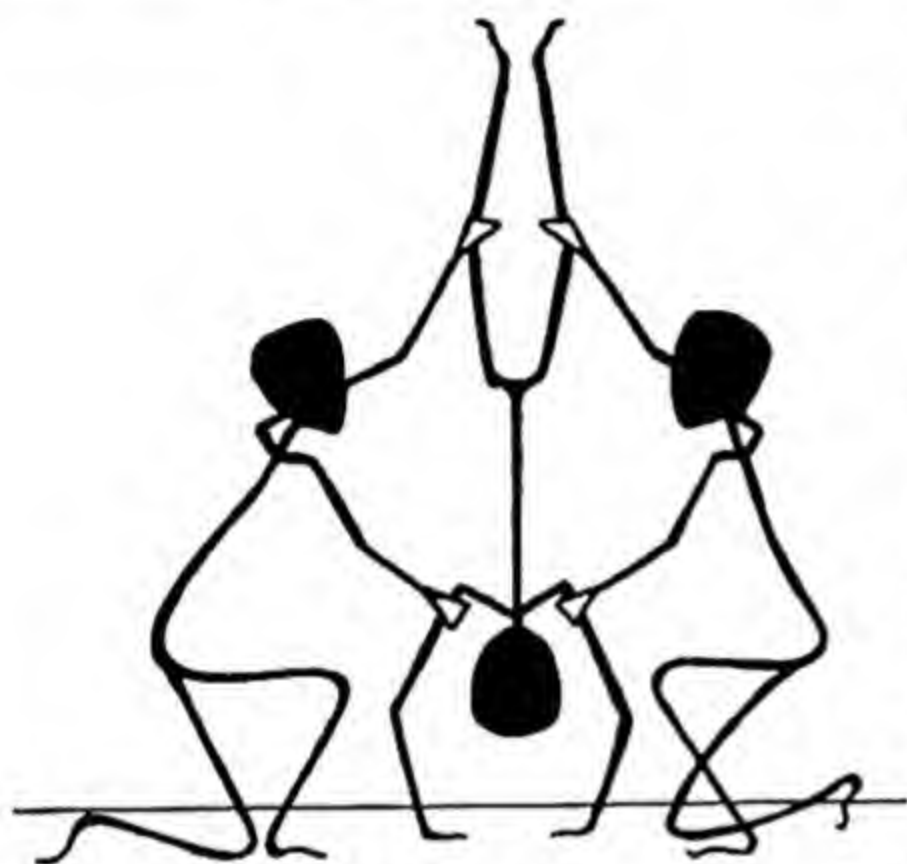


FIG. 30

(d) In pairs, one does the hand-stand, the other holds her round the hips and places one knee against her shoulder.

(e) The same with the support holding the feet only.

(f) Free hand-stand without support.

When first taking the hand-stand with the children in fours, give support yourself on one side and instruct each in turn in supporting on the other. When they have all had a turn at doing the movement and supporting, and understand exactly what is required, stand by while they work in fours.

(g) Hand-stand with supports sitting on benches (Fig. 29). Note the position of the hands on the part of the supports, also the shoulder support on the knees.

10. **Cartwheels.** Children who can do hand-stand can often manage these easily.

Start from hand-stand position with a partner supporting the hips. The performer then parts her legs and cartwheels down to take stride standing position with arms midway upward, the supporter helps to steady her and direct the downward and sideways movement.

Next, practise the cartwheel freely, starting from stride standing position with the arms midway upward.

SECTION V

A SELECTION OF GAMES FOR A SMALL SPACE

ATHLETICS and field games are outside the scope of this book, but much useful training in the fundamentals of play, such as ball throwing and catching, jumping, and quick co-ordination of movements in running and dodging can be given by means of simple practices and games of the type included here. They can be taken in the general activity section of the table and are suitable for use in a restricted space.

The ball practices are suitable for children of 8 to 10 years of age. Those with a netball will be enjoyed by older girls and seniors as well.

The few examples given show the type of game which can be included in the physical training lesson. The games cannot be strictly allocated to age groups. Some of them will be played with enjoyment by both juniors and seniors, and most of the team races are suitable for girls of any age from 10 to 16 years.

BALL THROWING, CATCHING, AND AIMING PRACTICES

Sorbo or Tennis Balls

1. Running, throwing and catching in both hands.
2. Running, bouncing ball and catching it in both hands.
3. Standing or running pat-bouncing ball.
4. Throw ball up and run and catch it after it has bounced
5. Standing, throwing and catching with one hand.
6. Standing, bouncing and catching with one hand.
7. The last two practices running.
8. Running, batting ball up and down with palm of hand.
9. The same with a wooden bat.

A Ball Between Two

1. Standing, throwing and catching with both hands.
2. Standing, bouncing ball across to each other and catching with both hands.
3. Both of the previous movements using one hand only.
4. These three practices, running and throwing or bouncing the ball to each other.
5. Standing, pat-bouncing ball across.
6. Running, pat-bouncing ball across. The players may pat-bounce the ball several times in order to gain control over it before returning it.
7. Batting a ball across to each other using a small wooden bat.

In Twos, a Ball or Bean Bag Each

Both throw at the same time so that the balls cross.

1. Standing, throwing and catching bean bags or balls.
2. Standing, bouncing balls across.

In all these practices the girls can count the number of times they keep the ball up, and try to beat their own records.

The Overarm Throw

Teach this when the children can throw and catch underhand.

The action can be taught first as an exercise in the physical training lesson. It should be practised to both sides, and may be included in the lateral trunk group.

Count (1), place the left foot forward, swing the right arm sideways backward as though holding a ball in the right hand, turn the trunk to the right, bringing the left shoulder over the left foot, weight on the back leg, (2) "throw" forward turning the trunk forward and transferring the weight to the forward foot. The hand should not come above the shoulder.

Catching

Show the children how to "cup" the hands with the wrists close together when catching with both hands. Explain that the hands and arms must "give" slightly as the ball is caught, otherwise it will bounce out of the hands, and also that holding the hands stiffly causes a hard ball to sting.

Aiming Practices

1. Throwing bean bags into a basket or box, standing behind a line at a suitable throwing distance.
2. The same position, throwing into a small hoop placed on the ground, or into a marked space.
3. Throwing a ball or bean bag through a hoop which is held up or suspended.
4. Under or overarm bowling at skittles.
5. Bowling a ball between two skittles or marks.
6. Throwing a ball at a target which may be a stool-ball wicket or a circle marked on a wall.

BALL PRACTICES WITH A NETBALL

1. **Running Circle Catch.** Groups of four or six players. A centre player holds a netball, the others run round and the ball is thrown to each in turn and returned on the run.
2. **Netball Passing.** Small groups of four or six pass a netball from one to the other, keeping on the move and always passing the ball back to a different person.

3. **One in the Middle.** Three players: the one in the middle tries to get the ball which the other two players pass backwards and forwards to each other. All keep on the move. The ball must not be thrown so high that it is not possible for the centre player to reach it with a jump.

4. **Netball Passing in Twos.** The ball is thrown just ahead of the catcher who must run forward to catch it and not move forward again till she has returned it to her partner who has meanwhile run ahead.

5. **Netball Shooting.** Shooting practice in teams or small groups. Each takes a certain number of shots from near the goal and the same number from the edge of the circle.

This can be taken as a competition, each team being allowed the same amount of time for shooting.

Ball practices should not be carried on for too long at a time. They are suitable for taking at the beginning of an organized games lesson or in the general activity section of the physical training lesson. In the latter case one team should have ball practice, the others jumping and agility exercises. The teams must be changed round after a few minutes at each activity.

The following games are quickly organized and suitable for taking during the physical training lesson.

TEAM RACES

In team races have as many as possible taking part at the same time. With four teams of ten or eight players in each, divide each team and make eight sections. In this way the girls get more activity and are not standing too long waiting to run.

File Races. In this form of race each player in turn runs, comes back and releases the next runner, this is repeated till all have run the course. The following races are run according to this method.

Bounce the Ball File Race. Each leader, holding a ball, runs, bounces it in a hoop or circle at the end of the course, runs back and hands it on to the next runner.

Hopping Race. The girls hop over the course on one or both feet. The course must be short and they should always *run* back.

Obstacle File Races. Do not make these too complicated.

(a) Bound across low rope or form.

(b) Move bean bag or skittle from one circle to another.

(c) Run back bounding over rope or form (Fig. 31).

Through the Hoops Race. A hoop is placed in front of each leader and another on the finishing line. As soon as the leader has been through the hoop by putting it over her head, she takes it in both hands and hands it overhead to the player behind her, who steps up to the starting line and goes through in her turn, while the first player runs to the finishing line, goes through the second hoop, replaces it and runs back to stand behind her file. This is a quick

race, as the next player is able to start directly the one in front of her is through the first hoop.

Crawling Through the Hoop. Two players in front of each team hold a hoop between them, near the ground. Each player in

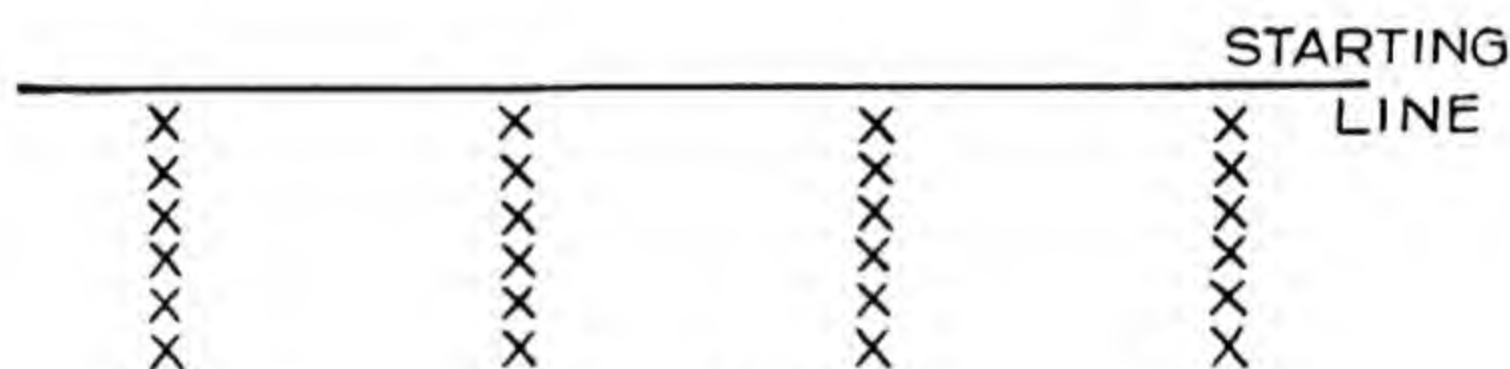
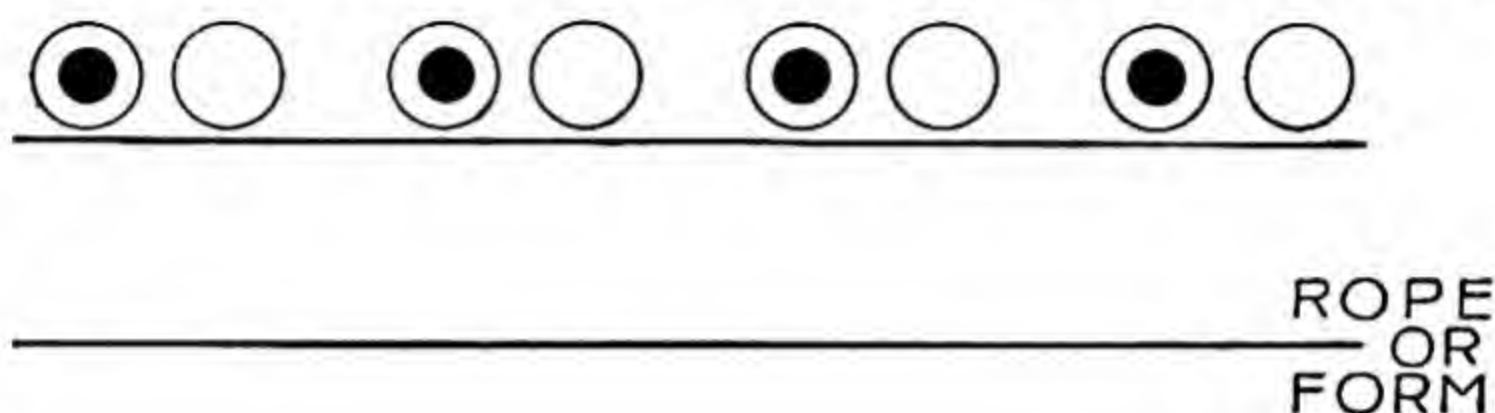


FIG. 31

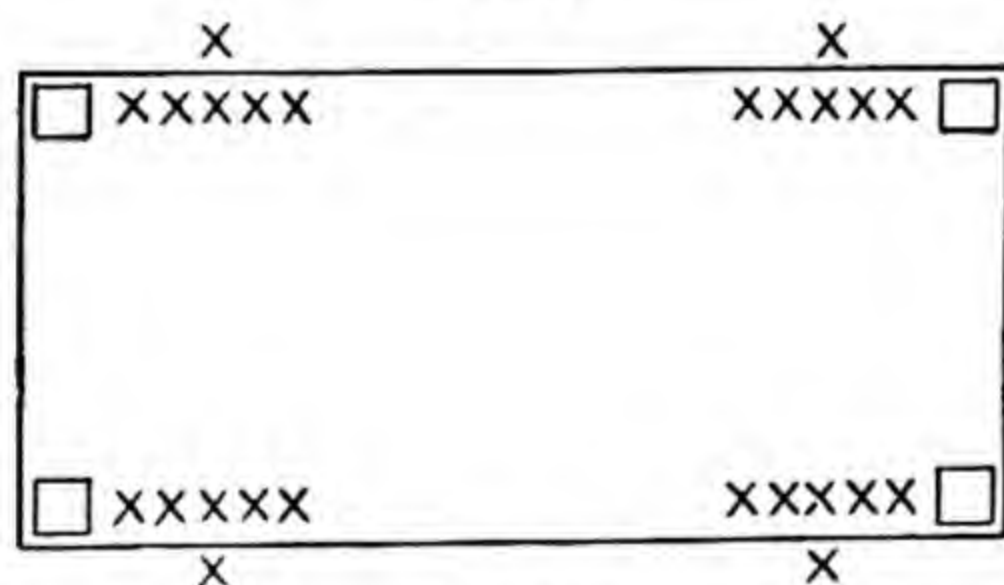


FIG. 32

turn runs forward, crawls through the hoop and runs back to touch off the next player.

Relay Race. Teams line up *inside* the space in crouch position. The runner who is to take on the baton waits outside.

At the whistle, each leader runs right round the course till she gets back to her team; she then hands the baton on to the next runner.

Place a post or mark at each corner, outside which runners must pass.

A netball court makes a suitable sized pitch for this race (Fig. 32).

GAMES

Touch Hands and Run. Players in two ranks facing each other on opposite sides of the playground, each facing a partner, each rank toeing a line. Those in one rank hold out one hand palm upwards. At a signal, opposite partners run across and touch the hand and try to run back again behind their own line before being caught.

Players should pretend to touch, and try to take each other by surprise.

Smugglers and Excise Man. The smugglers stand in a group within easy throwing distance of each other. Their places are marked on the ground by crosses, upon which they must keep one foot all the time. The excise man is free. The cargo may be a bean bag, small ball, or netball. The smugglers pass it from one to the other trying to prevent the excise man from getting it. If he secures the cargo he changes places with the smuggler who last touched it. He may get possession in the following ways.

- (a) Catching the cargo.
- (b) Picking up cargo from the ground.
- (c) Touching a smuggler who is holding it.

Another method is for all to run about freely with twice or three times as many smugglers as there are excise men in each group. Players must not crowd together, and should pass the cargo to other players who are not near an excise man.

When more than one group is playing, limit each to a certain area of the playground.

Jockeys and Horses. Players stand side by side in two concentric circles facing opposite ways, so that the inside circle can run round clockwise, the outside one counter-clockwise. Those on the outside are the "horses," those on the inside the "jockeys." Both circles run round, and at the whistle the outside circle runs away and their partners in the other circle try to catch them before they get an agreed distance, i.e. over a line at the other end of the playground. Circles then change places and repeat. Count up to find which circle has caught the most "horses."

Dodge and Mark. This game is good practice for girls of all ages. Players pair off side by side, with the couples spaced well apart. One player of each pair is the Attack, and the other the Defence. At a signal the Attackers try to run free, while the Defenders try to keep within arms' distance of them, so that when the whistle blows they can touch them. Each Attacker who can do this scores one point for her side. Players then reverse positions, the Defenders becoming Attackers. The side with the highest score is the winner. The players must stand still instantly when the whistle blows.

Allow exactly the same amount of time for each turn. Play for short spells only. This is a good warming-up activity, and excellent practice for marking, dodging and standing still at the whistle.

Corner Spry. This is a good game for juniors and can be progressed for seniors by increasing the throwing distance; also by using a rounders or cricket ball. Any size ball or bean bag can be used. Teams stand in rank behind a line, leader facing them 5-10 yards away. A circle is marked round the first and last player in each team (Fig. 33).

The leader throws the ball to the first player on her left, who returns it; it is passed in this way down the line. The end player

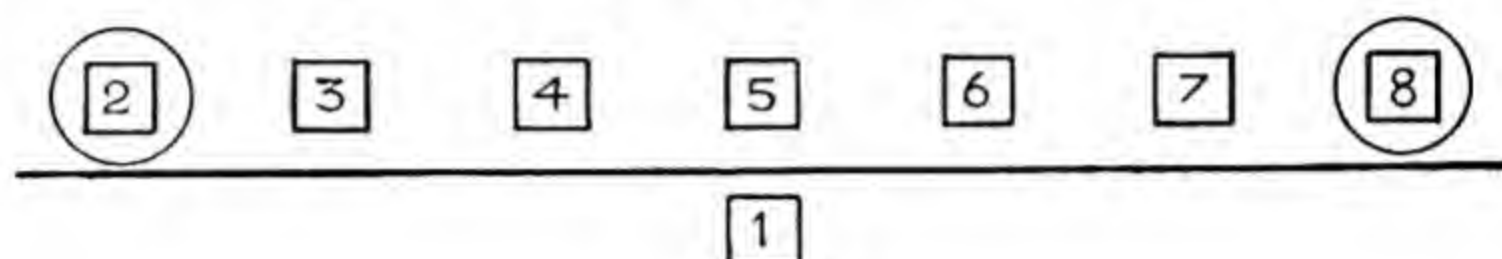


FIG. 33

runs out when she receives the ball and takes the place of the leader who moves into the top circle, every other player moving down one place. Each player comes out in turn and the end player always changes to top place; when the leader again receives the ball she runs out to the front of the team and holds it up.

Hand Tennis. This game is played with a tennis or sorbo ball batted with the palm of the hand.

The size of the pitch can be adapted to the number and skill of the players, provided that it is large enough to allow of a fairly strong hit over the net. It can be played in the gymnasium or playground with boundary lines either marked out or formed by walls, etc. It can also be played on a tennis court, using the service courts for play. A playing pitch 42 ft. by 30 ft. divided into two courts by a rope or net stretched across the middle, 4 ft. to 5 ft. from the ground, is suitable for the game.

The ball is batted over the net or rope with the hand. The ball may be returned as long as it is still bouncing, and may be bounced or batted up and down before it is returned.

The server bounces the ball outside the base line, and either bats it over the net or bats it to one of her own side near the net.

A point is scored by either side if their opponents let the ball down or hit it into or under the net, or do not return it into court. After any faulty return or bad service the ball is given to the other side for a new start.

The score should be called by the captain or umpire after each rally.

Play for the first to reach 15 points.

Three Court Dodge-Ball. Divide the players into three teams and mark off the pitch into three equal parts (Fig. 34). There should not be too many players for the space; if the pitch is over-crowded the game loses interest and skill.

The object of the players in the two outer courts is to hit the players in the middle court with a large rubber ball or football. The middle court players must dodge without leaving their court, or touching or interfering with the ball in any way.

The throwers may go into the middle court to get the ball, but they must have both feet inside their own court when throwing. A point is scored against the dodgers in the middle court whenever one of them is hit with the ball. Hits above the knee do not count.

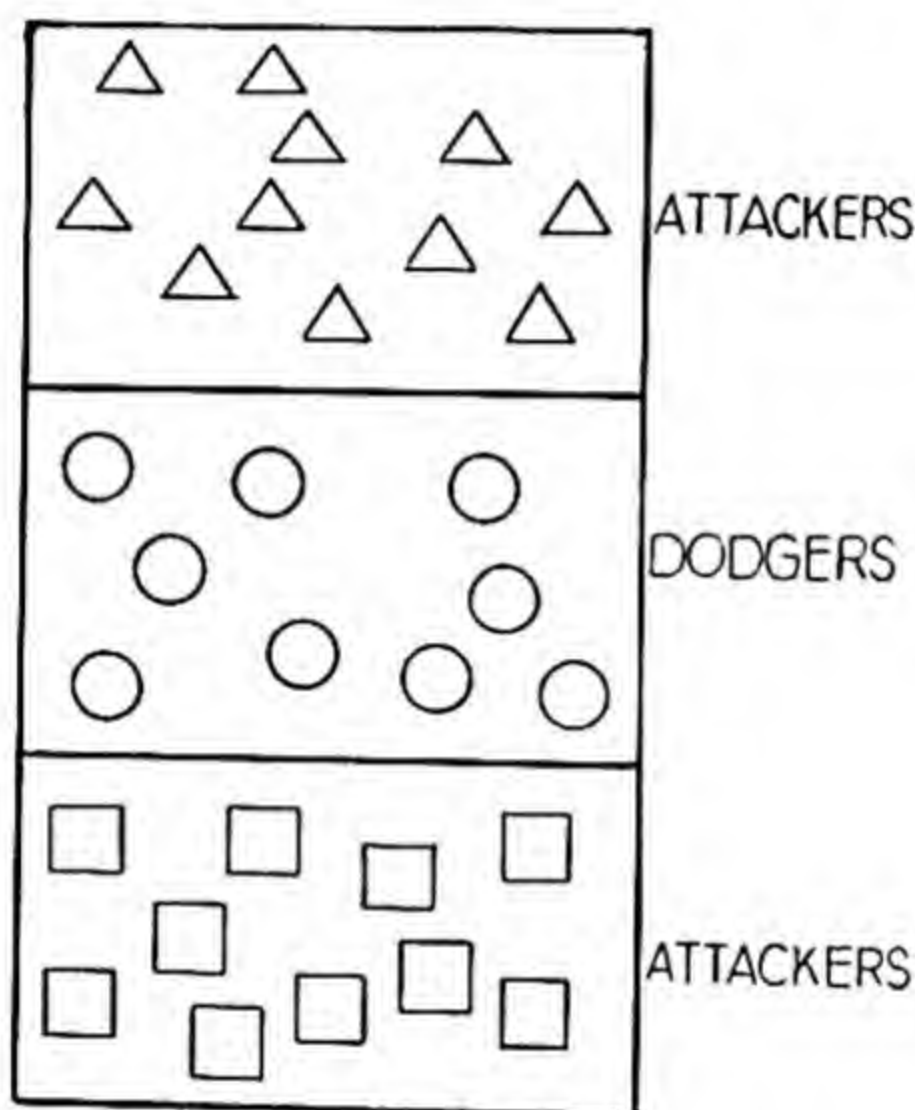


FIG. 34

Each team has the same length of time in the middle, say three minutes, and the one with the lowest score at the end is the winner. If any player breaks a rule, a point is scored against her team.

Another method is with two teams spaced round outside a circle and a third team inside.

Team Passing. Small groups, four or six a side.

A football, bean bag or small ball.

The ball is thrown up between any two opponents. The player who secures it passes it to a player on her own side. The aim is to make as many passes as possible. Intercepting a pass does not score a point. Players may not run with the ball or hold it for more than three seconds.

Each player should mark down another player of the other side.

The team with the highest score within a given time, three to five minutes, is the winner.

This can be played in a fairly small space to practise short passing.

SECTION VI

POSTURE

ONE of the chief aims of physical education is to develop a sense of good posture.

Every healthy baby is born with the capacity for good natural posture. Unfortunately many children soon develop postural faults. In any school there are always some children with poor posture and with one or more of the minor deformities resulting from it. While muscles are supple and bones soft and pliable these faults can be put right. With older children changes will have taken place in the bones which are difficult and sometimes impossible to correct, though remedial treatment will improve appearance and carriage. Teachers therefore need to understand what it is that constitutes a good posture and how to prevent the development of a faulty one. Here are the essential things to consider.

Sufficient Rest

This is vitally important. A tired child cannot hold herself well. At one school the doctor at each medical examination generally reported some girls as having slack "fatigue postures," and it was found that all these children went to bed too late. Children need a great deal of sleep. Most schools try to get the parents to co-operate in this matter but it is a difficult problem.

Few schools organize any kind of rest period during school hours. The children generally rush out to vigorous play immediately after eating a hearty midday meal. They should be resting for at least half an hour, reading or engaged in some recreational sitting occupation.

Postural defects often develop after illness when a child gets easily tired and consequently slumps in posture. Absence for a few days with a bad cold may cause the child to tire quickly, so watch out for that weary droop and see that any child who has been absent through illness does not get over-tired at gymnastics or games.

Good Nutrition

This is a fundamental necessity. Fortunately there is now less danger of children being underfed.

Exercise

Children must have plenty of free vigorous natural movement and this should be as much as possible in the open air. They need to run and jump and climb. The muscles of a healthy child have the right degree of what is known as good muscular tone. Holding

the body erect entails constant muscular activity. The muscles and ligaments have to hold and support the bones of the skeleton in position, weak muscles mean poor posture.

THE MEANING OF GOOD POSTURE

The erect position is maintained by a constant effort to overcome the force of gravity which all the time tends to pull the body forward. To keep the body erect a constant stream of nervous impulses pass along the nerves to the muscles concerned. A child when he first begins to stand and walk topples forward till he has learned to balance. Once this sense of balance is developed it is maintained unconsciously.

When a child with poor posture tries to stand properly he has at first to exert conscious control of his trunk muscles, but with constant practice he learns to do it unconsciously and forms a habitual good posture.

The groups of muscles which work together to keep the body upright are arranged in opposition to each other so that they exert a pull on the skeleton in different directions. For example, the muscles of the neck and back contract to work against the forward pull of gravity, while those in front contract sufficiently to counteract the pull of those at the back. The strong muscles of the buttocks extend the hips and work against the pull of the thigh muscles in front which extend the knee joints.

CHIEF MUSCLE GROUPS CONCERNED WITH POSTURE

1. The neck muscles to hold up the head.
2. Strong spinal muscles which steady the spinal column and keep the individual bones in position.
3. The hip muscles to steady the pelvis and the lower part of the spine.
4. The muscles in front of the thighs which brace the knee joints.
5. The abdominal muscles. The strong sheets of muscle which support the internal organs, brace the waist region and steady the lower part of the spine.
6. The muscles of the leg, ankle, and foot.

Standing well is only a part of good carriage. Carriage is I think a better word than posture to use with children. They should be told to try always to carry themselves well when walking, running, jumping, etc. The emphasis being on movement, easy graceful movement, not just during the gymnastic or dancing lesson, but at all times.

To stand well a child must—1. Tuck in her seat by contracting the muscles of the buttocks and back of the thighs. 2. Stand with feet pointing straight forward, knees braced back but not stiff. 3. Stand as tall as she can with head up, chin in, and shoulders drawn back and down without strain, arms hanging easily by the

sides of the legs with palms towards them. 4. Have weight slightly forward over the balls of the feet.

COMMON POSTURAL DEFECTS

Ordinary class work, if intelligently arranged, should prevent or remove incipient or minor defects. The teacher's aims should be—

1. To educate the children to take and maintain a good habitual posture.
2. To give exercise which ensures good muscular tone.
3. To remedy slight defects.
4. To notice defects which need special remedial treatment and report them at once.

THE FEET

All postural training must begin with the feet. If the feet are weak the rest of the body is thrown out of line. Foot trouble starts in childhood and a seemingly small defect may become a serious deformity in later life.

The bones of the foot form two arches: the long arch between the heel bone and the toes, and the cross or transverse arch running across the foot just behind the toes. These arches support the body weight and act as shock-absorbing springs. They are supported by muscles and ligaments. If these become weakened and stretched, flat foot results. The best preventatives are—

1. Suitable shoes which do not cramp the feet. This is the parents' responsibility but teachers can advise. Children should learn to notice when their shoes are beginning to feel too short for them. Short socks or stockings do as much harm as short shoes.

2. Keeping the feet strong and supple. There must be freedom of movement in ankle joint and toes.

3. Walking correctly. Many children walk badly. Teach them to move freely from the hips with the feet directed straight forward. The middle of the heel should touch the ground first and the weight should then fall on the outer border and finally on the ball of the foot.

Look carefully for any signs of knock-knees or bow legs. A knock-kneed child will find it difficult to put her heels together. When her legs are together one knee may be slightly in front of the other. A tendency to bow legs is easily seen.

A child with weakness of the long arch will walk and stand with feet turned out and with the weight falling on the inner borders of the feet.

Flattening of the transverse arch is not so common with children but does occur. It is usually caused by shoes or socks that are too short. There is pain in the ball of the foot and a hard callous develops caused by pressure of the bones of the sunken transverse arch. In bad cases the balls of the toes are raised from the ground.

Children with serious foot faults should attend the school clinic.

Minor cases are usually treated at school in special remedial classes, but unless the teacher of physical education is thoroughly trained in remedial work she should not attempt this.

The teacher who is not fully trained can do a great deal in the ordinary gymnastic lesson towards preventing postural defects developing by noticing them in their early stages. Sometimes many members of a class will have similar defects, she can then include in her table special exercises to correct round shoulders, tendency to flat foot or whatever the fault may be.

FOOT EXERCISES

Exercises for Mobility

All foot exercises should be done with bare feet.

Exercise 1. Cross-legged sitting or sitting on a bench. Lift one foot and grasp the leg just *above* the ankle with both hands. Now shake the foot vigorously, trying to get really loose movements in the ankle joint. Do this for about half a minute then treat the other foot in the same way. Repeat several times with each foot.

Exercise 2. Cross-legged sitting. Grasp one foot below the toe joints with the opposite hand, fingers in front thumbs behind. With the other hand work at each toe in turn and pull it out as straight as possible. Pull the big toe outwards from the foot—there is a tendency for this toe to slope inwards. Next grasp each toe in turn at the root just below the last joint and move it outwards and then inwards in circles. Work at this for two or three minutes then do the same with the other foot.

Exercise 3. Bend toes and stretch them out again trying to open them wide apart. Repeat several times.

Exercise 4. Stand with one foot forward. Bend the knee of the forward leg and place both hands on it lightly. Keep the foot still and “roll” the leg on the ankle by drawing circles over the foot with the knee, moving the knee round outwards in large circles. The knee of the back leg must be straight and both feet kept firmly on the ground.

All the above exercises loosen up stiffened muscles and ligaments, strengthen the feet and improve the circulation in them.

Nothing can be done to improve the condition of the feet if they are stiff. One or two of these exercises can be given in each class.

To Prevent and Correct Flat Foot

Exercise 1. Crook sitting. Place the soles of the feet together turning the knees out. Raise the feet and look through space between the soles of the feet. Repeat 8 times. Then swing the legs over head and try to touch the floor behind with the feet.

Exercise 2. Standing position, feet straight and toes stretched. Keeping weight on outer border of feet and toes raise and arch up the inner borders of the feet.

Exercise 3. Place the heel firmly on one end of a broad braid or games band. Work the toes "clawing" to pull it in and gather it all up under the foot. Repeat with the other foot.

Exercise 4. Partners sitting on ground opposite each other with one braid between them. Each grasp braid with the toes of one foot and pull trying to hold on.

Exercise 5. Cross-legged sitting. Grip chalk or pencil with one foot. Try and draw a circle or write name.

Exercise 6. Cross-legged sitting. Two small circles drawn on floor with marbles placed in one. Lift up marbles with toes and put them into the other circle.

Exercise 7. Stand with feet together and pointing straight forward. Raise the heels, turning them out, and lower them, raise heels, bringing them together again, and lower them, keeping the weight on the outer borders of the feet.

Exercise 8. Walking along a marked line with feet turned in.

Exercise 9. Balance walking along a balancing bench.

Games. 1. Teams in files. Feet bare. Leaders stand behind line each with a bean bag. A circle is marked a short distance in front of each team. The leader picks up the bean bag with her toes, hops with it to the circle and puts it in, runs back and touches off next player who runs to the circle, picks up the bean bag with her toes and hops back with it dropping it *over* the starting line and touching off the next player. Continue till all have had a turn. Each player on returning to the file goes to the back. The file which first has the leader in front again is the winner. Later use a marble instead of a bean bag.

2. Two circles are drawn a short distance in front of each file. In one of these are two bean bags. The leader runs forward, picks up each bean bag first with one and then with the other foot and puts them into the next circle, runs back and touches off the next player who puts them back again, and so on.

SPINAL CURVATURE

The spine is a flexible column made up of many separate bones; it is naturally slightly curved so that it can act as a spring, preventing shock to the spinal cord and brain. If these normal curves are increased, poking chin, round back, and hollow back result. These are the most common postural faults.

In lateral curvature some part of the spine is bent sideways to right or left. This has many causes and can usually be completely cured in its early stages. Treatment of this condition must be undertaken only by a fully trained Remedial Gymnast. Any child who has one shoulder or hip which appears even slightly higher than the other should be sent to the School Medical Officer or clinic for examination.

ROUND SHOULDERS

When the shoulders are rounded the muscles of the chest become contracted and those of the back stretched and weakened. To correct a tendency to round shoulders exercises are needed which will expand the chest, strengthen the muscles of the back, and mobilize the shoulder joint. These include all arm exercises, exercises for spinal mobility, all posture and chest expansion exercises, such as those given on pages 33 to 36, and head exercises to correct the carriage of the head.

Isolated head exercises have fallen into disuse in ordinary gymnastic lessons. These are thought dull nowadays and most teachers consider that sufficient head movements take place in the general exercises. Head exercises should, however, be given to children with poor posture. If they are well taught and their aims briefly explained the class will not be bored.

Head exercises strengthen the muscles of the neck and improve the mobility and general posture of the upper part of the spine. They should be taught first in sitting or kneeling positions to confine the movements to the head and neck.

If the shoulders and back are stiff, nothing can be done to improve the posture so exercises to make the shoulder joint and spine supple must be given.

HOLLOW BACK

This is an increase in the normal curve in the lower part of the back. The abdominal muscles are weakened and those at the back become contracted. Hollow-backed children often have a very erect carriage of the head and shoulders. Children sometimes take a hollow-backed position in their efforts to stand well. They make themselves tense, draw their shoulders rigidly back and push out their seats and tummies. They must be taught to contract the muscles of the buttocks and thighs, the seat will then be tucked in and the slackened abdominal muscles tightened up. Children who cannot correct a hollow-backed standing position need skilled remedial treatment.

The important thing is to prevent postural defects from developing by noticing them in their incipient stages. If many members of a class have similar defects, e.g. round shoulders, tendency to flat foot, the teacher can include in her table special exercises to correct them. Only a few of these movements should be given in a lesson and children who need them should be encouraged to do them at home.

All the following exercises may be included in ordinary class work.

Head Exercises

All done in X sit. position.

1. Head dropping forward and raising.

2. Head dropping backward and raising.
 3. Head turning sideways 1-3, with a strong turn on the 3rd count 1, 2, 3.
 4. Head rolling.
- Finish all exercises with the head held in a good position.

Mobility Exercises for the Shoulder Joint

1. Standing. Shrug shoulders loosely up and down.
2. Standing. Roll shoulders backwards by shrugging them up and pulling them back and down. Relax.
3. All arm exercises (page 38) especially arm swingings and circlings.

Mobility Exercises for the Spine

Trunk bending forward and downward. Any of the exercises of this type described in Section IV.

All lateral trunk movements. See page 45.

Exercises for Round Shoulders

Single and double arm circling backward. All posture exercises (page 33) especially chest expansions and exercises in Forward Lying position.

Exercises for Hollow Back

1. General corrective position. See Fig. 10, page 34.
2. Hold above corrected position and walk forward.
3. Crk. lying hands at sides. Flatten the lower part of the back against the floor by contracting the abdominal muscles.
4. Four foot kneeling position, page 8. Keeping arms straight and legs still try to hump up the middle of the back. Relax.
5. Four foot kneeling position. Keeping arms still, bend head forward and bend left knee up underneath body, hump up back and try to touch forehead with knee. Repeat with other leg.
6. Bk. lying with legs straight and a bean bag held between feet. Bend both knees up to chest, stretch legs upward and carry legs beyond head placing bean bag on floor behind. Lower legs slowly. Repeat, this time picking bean bag up with feet from behind head.

SECTION VII

ATHLETICS AND SCHOOL SPORTS

THIS section will be helpful to those teachers called upon to organize school sports. No directions for coaching athletics are, however, included, as this is best learned from practical demonstrations given by experts.

Teachers in charge of physical education should know how to teach for all the ordinary athletic events included in school sports. Instruction in running, jumping, and throwing should go on throughout the year in gymnastic and games lessons. If these activities are properly taught an interesting programme can be arranged.

A specialized event such as hurdling should not be included unless the teacher knows how to coach in the "leading up" exercises which teach the correct action. Too often the "hurdling" seen at school sports is merely jumping.

All teachers in charge of gymnastics and sports can learn how to teach a crouch start for races, and the proper method of handing on the baton in relay contests. They should go to girls' sports meetings run under W.A.A.A. rules, watch the various events and how they are judged, and the knowledge gained, supplemented by the information given in many excellent books and pamphlets published on athletics for women and girls, should meet their needs. Local athletes are often willing to give advice and help; many education authorities run special courses for teachers; "action" photographs appear in the press; there are films on athletics which can be hired; these and other aids are open to the teacher. Senior girls who belong to athletic clubs can be asked to pass on their knowledge by helping to coach others. With such help available there is no excuse for the acceptance of deplorably low standards in girls' schools whether private or public.

Modern girls like their sports to be properly arranged. I have frequently heard senior girls say how they hate what they call their "potty" school sports. Such old-fashioned Sunday School treat events as egg-and-spoon and potato races, sack race, slow bicycle race and three-legged races (the last three are really dangerous) should be ruled out. There is no need for the sports to be dull. Besides the ordinary athletic events there can be others connected with games. Team races can include girls without special athletic ability, there should be a short run and some activity like ball throwing or aiming at a target.

Women's athletics have now a definite place in our national sporting events. General interest in them has grown tremendously during the last few years, and standards are high. If we are to hold

our own in international contests we need more women athletes, and girls who show ability should be encouraged. Training should begin in the schools, but this is only one and not the most important aspect of school athletics. Athletics have been developed from the natural movements of running, jumping, and throwing. Children enjoy these activities and they are necessary for their physical development. One of the chief aims of physical education in schools is to produce an even physical development; this should result from the training given in gymnastics and games. In this sense general athletic training should go on throughout the year. With this it is quite easy to combine definite coaching. For example, the correct way to run can be taught during free running; the whole class can learn a crouch start and practise sprinting as a general activity; the proper action for the overarm throw can be taught to the class and practised during group work with balls and handing over the baton for a relay, from team races. These and the high jump too can all be included in class work. Girls who have been trained in this way will be able to take part in school sports without any strain.

Most schools have annual sports. Nowadays these are not run on individual lines but as house contests, winners gaining points for their houses. A school not using the house system could be divided into four competing groups for sports.

If the sports are to have any real value every fit girl in the school should take part and realize that her individual effort counts. This will be the case if everybody who enters for any heat or event wins a point for her house for entering.

PREPARATION FOR SCHOOL SPORTS

These hints are intended to apply to sports for girls over 11 years of age. Unless a school has small numbers, juniors and seniors should not have combined sports. Let the younger children have their own short meeting with suitable events. They can have short flat races, easy team races, and short obstacle races with simple activities like jumping a cane or going through a hoop. Some easy races can be arranged for the kindergarten children.

Most of the hard work is done before sports day. The success of the meeting depends upon thorough preparation. A school sports meeting should never be a long one. An ordinary afternoon session allows quite enough time.

THE PROGRAMME

This should be arranged so that no girl will be likely to have to take part in two events one following directly after the other. Some events can be grouped so that, for example, a junior high jump is judged while senior and middle school track events are going on.

Girls will enter for events under age groups. The best way to avoid confusion over this is to state that "all competitors must be 12 and under, 14 and under, etc., on the day of the sports." It is usual to limit girls to three events on sports day, e.g. two track events and one field, or two field events and one track.

Only the finals should be run on the sports day, but team events which do not necessitate the running off of heats can be included in the programme; this will enable more girls to take part on the day.

For such events as the high jump and throwing the rounders ball, only those in each age group who can jump a specified height, or throw a certain distance, should compete on sports day.

HEATS

These must be run off in plenty of time, and ample allowance should be made for possible bad weather. They should be finished a fortnight before sports day. Leaving them till the last week usually means a rush, and the week may be a wet one.

Take entries under age groups. Allow enough time for everybody to put down their names and make up the heats from these lists. Post notices at least a week in advance, stating the dates and times when the heats will be run off. A necessary rule to make is that the entry of anyone who for any reason whatever is not present at a heat will be cancelled.

When the heats are finished put up a list of all those who are taking part on sports day. Include in this teams competing in team events and the names of the competitors in each team.

Before sports day put up a programme and a plan of the ground showing where the events will take place.

The following lists and record sheets must be ready beforehand—

1. For track events two lists of the events which will take place on each track in programme order; one copy for the starter and one for the finishing end.

2. A card for each race for the judges to fill in the results to send to the recorders.

3. Score cards fixed to stout cardboard made out ready for the judges of events, such as the high jump.

4. A recording sheet showing the events in the same order as they come on the programme, and the number of points allowed for each.

5. If house cups or shields are to be competed for, a list of these should be made in programme order. On the day the awards should be arranged in order on a table so that they can be found at once to hand to whoever is making the presentation. A reliable person should be made responsible for this.

ORGANIZATION OF SPORTS DAY

Judges, starters, marshals and stewards must be appointed. Members of the school staff are usually willing to start and judge events.

Marshals will be needed to assemble and check competitors for events. Members of staff, or prefects if available, should do this.

Stewards. A great deal depends upon efficient stewarding. Stewards will be needed for—1. Holding the finishing "tape," which by the way is a strand of worsted, not tape—tape should never be used. The worsted breaks as the runners go through and should be held about chest height. 2. To get ready and to collect afterwards equipment for obstacle races, etc. 3. To rake over sand for jumps. 4. To mark the spots where balls land in throwing events, and to keep a constant supply of balls ready.

Runners or messengers will be wanted for the judges and starters. There will probably be many other jobs. The point is that unless all these things are done promptly there will be delays and confusion. Girls who are not competing can help with these jobs. All stewards should wear a special rosette or badge.

Recording Results. A table for the recorder should be placed near the finishing end and the results entered at once. There should also be a number board showing which events are taking place, and the position of the competing houses or groups should be posted up from time to time.

Judging. For flat races there should be two judges and a referee. It is not a good plan to have three judges, one for each place, as is sometimes done in school sports. The following is the generally accepted method. The two judges stand one on either side of and level with the "tape" though well back from it. This is the only position in which it is possible to get an accurate view of the finish. Judges and referee watch, if there are three places, for all three places and the fourth, in case a runner should be disqualified. If the judges do not agree, the referee is appealed to and gives a decision which is final. The referee says nothing unless asked for a decision.

Starters. One very seldom sees races at girls' school sports started by a pistol. This is a pity. Anybody can learn to use a starting pistol and it is good training for the girls to learn to start in the orthodox way. Whether or not a pistol is used the start must be made properly. The starter must say "On your marks—get set"—then fire the pistol or give the command "Go!" If a false start is made the pistol must be fired again instantly (or a whistle blown if there is no pistol) to bring the competitors back. No part of the body may be over the starting line till the signal to start has been given, and no movement of any kind is allowed in the "Get set" position. Starters will not wait for anyone. Competitors must be in their places in time for their events.

Events. In the last report of the Conference on Athletics for School Children, the following distances for races are given—

Boys and Girls 8-11 Years

Flat 50 yd. for ages 8 plus

„ 60	„ „ 9	„
„ 70	„ „ 10	„
„ 80	„ „ 11	„

Girls Over 11

Flat 90 yd. for ages 12 plus

„ 100 „ „ 13 „

Relay distances to be no longer for each individual than those advised for flat events. All teachers who are in any way responsible for directing athletics for school children should have a copy of this report. It was drawn up by representatives from all the chief Associations connected with Schools, Amateur Athletics, and Physical Education. It is packed with valuable information on athletics for school children and the arrangement and organization of sports meetings.

It may seem unnecessary to say that girls should not compete in tugs of war, but I have seen this event at school sports. All authorities condemn it as quite unsuitable for girls and women because of the abdominal strain involved.

It is not advisable for girls under 18 to compete in running long jump. The reason is that owing to the strong abdominal contraction and the force with which the taking off board must be struck, the ligaments of the pelvis may be adversely affected. Hop, step, and jump does not exert the same strain. There must be a proper take-off board and landing pit for this event.

High Jump. Girls who are good at this event are unlikely to suffer any strain provided there is a proper landing pit and suitable conditions for the take-off. The high jump is sometimes taken at school sports with only a gymnastic mat to land on—this is not a sufficient shock absorber to interpose between the body and the hard ground, and jumping under such conditions involves grave risk of internal jarring and injury, quite apart from the danger of sprains or fractures. Care must also be taken to make sure that the take-off does not become slippery.

The following is a list from which events might be chosen for school sports—

Flat Races

90 yd. Age 12 plus.

100 yd. Age 13 plus.

Relay races.

Hurdles (if there are facilities for coaching).

Team races: these can include the average girls who are not competing in the flat races.

Obstacle races: these should never include "Funny items" like drinking water, or eating buns or apples, which are extremely dangerous. They can include balance and agility tests.

Hockey relay race: dribbling a ball round a stump.

High jump.

Hop-step-and-jump.

Throwing the rounders ball.

Throwing the Netball.

Hockey driving for distance, with correct stroke.

Netball goal shooting.

Javelin Throwing } if, for these events, expert coaching can be
Discus Throwing } given.

CLOTHING FOR SPORTS

Dark shorts, a short-sleeved, open-necked blouse or shirt, and a vest should be worn. Older girls must wear an adequate brassière. Socks should always be worn with shoes. Each child should bring a change of clothes and a towel for a rub down.

Impress upon the girls that they must not stand about between events without wearing an extra coat or wrap and that they must always start an event warm. They should be instructed how to "limber up" beforehand and then keep warm till it is time to start. Insist upon a coat or sweater being put on immediately after an event.

It is an important part of a girl's education to learn that suitable clothes are needed for special purposes, and they should be encouraged to get proper sports' kit. Spiked shoes make a great deal of difference to a sprinter or jumper. One seldom sees boys taking part in sports without proper equipment and it is quite as necessary for girls. To be properly shod and clothed lessens risk of strain or chill and makes for comfort and ease of performance.

On the day of the sports some qualified person must be in charge of First Aid in case of accidents.

